



December 9, 2005

Mr. Thomas Martin  
U.S. EPA, Region V  
Office of Regional Counsel  
77 West Jackson Blvd. (C-14J)  
Chicago, IL 60604-3590

Mr. Nabil Fayoumi  
U.S. EPA, Region V  
77 West Jackson Blvd. SR-6J  
Chicago, IL 60604-3507

**Re: Clayton Chemical Connection to Sauget Area 2**

Dear Mr. Martin and Mr. Fayoumi:

The following is the information we have that connects the Clayton Chemical Company ("CCC") operations, and its groundwater to Sauget Area 2.

1. Ed Reidy, who was the primary owner of CCC, began an oil refining type operation on property in Sauget, Illinois, in the area that has come to be known as Clayton Chemical, in the early 1960's. In the early to mid 1960's Mr. Reidy began a solvent reclamation business at the Clayton Chemical property. We have the following information on CCC operations from documents and depositions:

- Over the years of its operations, CCC had spills of solvents, had tanks that leaked and generally caused contamination on the CCC property. A RCRA Facility Assessment ("RFA") done of the property by IEPA describes the various issues with the property. A copy is enclosed.
- Mr. Entrup, a former CCC employee, who worked at the facility from January 1971 to February 1983, testified that the following materials, among other things, were handled at CCC while he worked at CCC (all of which could have leaked or spilled on the property):

Trichloroethane (Entrup Depo., pg. 23)  
Acetone (Id., pg. 64)  
Benzene (Id., pg. 200-203)  
Methyl ethyl ketone (Id., p. 64)  
Toluene (Id., p. 64)  
Xylene (Id., p. 64)  
Chlorinated solvents (Id., p. 293, 313)  
Halogenated solvents (Id., p. 293)

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2. Based on Sampling in the CERCLA Combined Assessment done by the IEPA in 2001, it is clear that the CCC shallow groundwater (all from a depth of 8-16 feet) is contaminated with the following (hits listed that were found in more that two wells):

Contaminant	Range of constituents found (ppb)
1,1,1 Trichloroethane	0 to 150,000 ppb
1,1 - dichloroethane	0-1,500 ppb
1,1 – dichloroethene	0-3,900 ppb
4-methyl-2-pentanone	0-49,000 ppb
Acetone	0-14,000 ppb
<b>Benzene</b>	<b>0-21,000 ppb</b>
Chlorobenzene	0-10,000 ppb
Cis-1,2-dichloroethene	0-31,000 ppb
Ethylbenzene	0-4,400 ppb
M & p xylene	0-11,000 ppb
Methylene chloride	0-320,000 ppb
o-xylene	0-3300 ppb
Toluene	0-100,000 ppb
<b>Vinyl Chloride</b>	<b>0-2,100 ppb</b>

Note that not only were high levels of the above found, but also at 4 locations, the IEPA found free product in their geoprobe wells (see Table 2 in the CERCLA Combined Assessment). The highest hits of the groundwater contaminants listed above are in the processes areas at CCC. These results are similar to the results of sampling done on the CCC property by the Area 2 PRP group. See attached results that include a sampling map, samples taken from Clay-1 (just off the CCC property to the north) and Clay-2 (in the middle of the process area at CCC). Not only will you see similar contamination in the shallow groundwater in the 2005 results from the well on the CCC property, but the Area 2 PRP group found some of these same constituents in the middle and deep hydrogeologic units at CCC. A copy of the data from the well at CCC (Clay-2) is attached. The table below sets out the constituents and the levels found in the middle and deep unit at CCC in the 2005 sampling, which constituents were also found in the shallow unit in the 2001 study:

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Contaminant	Constituent (ppb)	
	MHU	DHU
1,1,1 Trichloroethane	320	9,800
1,1 - Dichloroethane	2,100	2,100
1,1 - Dichloroethene	230	460
MIBK	24,000	4,000
Benzene	5,500	5,900
Chlorobenzene	4,600	1,300
1,2 dichloroethene (total)	1,000	9,600
Ethylbenzene	580	400
Xylene (total)	2,400	1,700
Methylene chloride	5,400	2,700
Toluene	10,000	11,000
Vinyl Chloride	1,400	96

In the summer of 2004, our expert in the Area 2 litigation had hydro punch wells installed down gradient of CCC in the shallow hydrogeologic unit (Attachment 1). Those wells had some of the above contaminants in them that were found at CCC. It was Dr. Davis' opinion in that litigation that CCC's contaminated groundwater was migrating and impacting Area 2 groundwater. See Davis Deposition of 9/14/04, pgs. 48,74,112. The new Clayton data confirms Dr. Davis' opinions given before the Clay-2 well was installed by the Area 2 PRP Group.

When the above findings are compared with other data we have available up gradient and down gradient from CCC, it is clear that CCC groundwater is migrating and causing contamination in Saugnet Area 2. We have put together some cross sections that will more clearly show the connections of the CCC groundwater contamination with Area 2. One chemical that shows the connection is benzene. The attached cross section for benzene (Fig. 1) shows the high levels of benzene in the CCC groundwater in all units. The CC-HP wells show that benzene is migrating off site to Area 2 even in the shallow unit. The only down gradient wells in the deep aquifer are BDRK-R-1 and AA-R-1. These both indicate benzene levels, even at bedrock. While there are other sources of benzene in Area 2 other than CCC, it is clear that CCC is a significant source as well, and that the benzene is migrating off site to Area 2.

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Another example is vinyl chloride<sup>1</sup> ("VC"). In the attached cross section (Figure 2) you can see that VC levels are very high at CCC in all units of the groundwater. While deep down gradient wells are not available, in the CC-HP wells you will see that VC is migrating to Area 2.

Based on the above information, we think that U.S. EPA now has enough information to put the CCC parties on notice of their liability for Sauget Area 2 Groundwater, and we request that U.S. EPA seriously consider sending letters to the CCC parties concerning that liability.

If you have any questions, please give me a call.

Very truly yours,

Husch & Eppenberger, LLC

By: Linda Tape  
Linda W. Tape

LWT/da

cc: Sauget Area 2 Sites Group

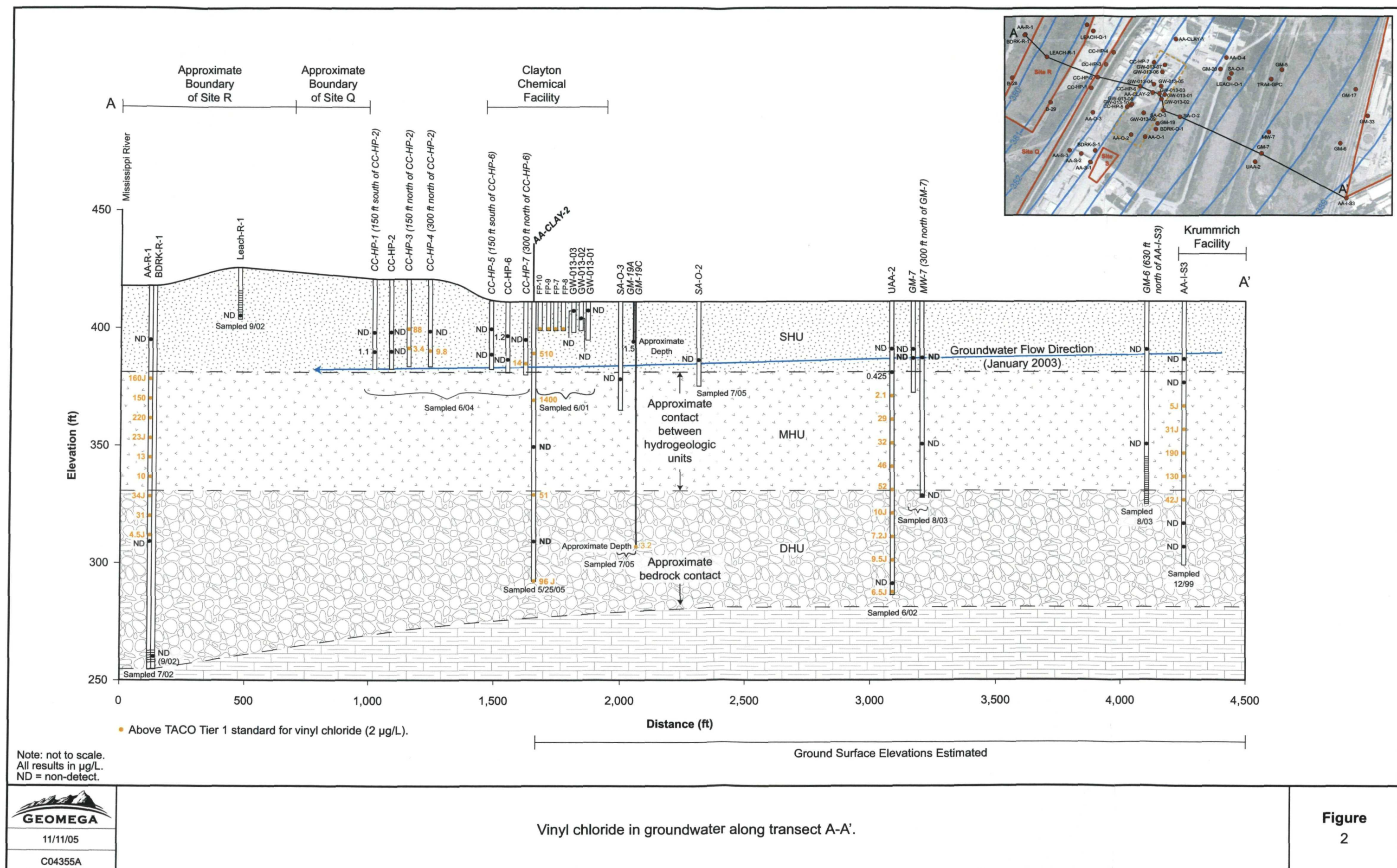
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<sup>1</sup> Vinyl Chloride is a breakdown product of dichloroethene.









**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-22		5/24/05	VOCs	1,1,1-Trichloroethane	23000	ug/L		400
AA-CLAY-2-22		5/24/05	VOCs	1,1,2,2-Tetrachloroethane	400	ug/L	J	110
AA-CLAY-2-22		5/24/05	VOCs	1,1,2-Trichloroethane	670	ug/L		190
AA-CLAY-2-22		5/24/05	VOCs	1,1-Dichloroethane	12000	ug/L		280
AA-CLAY-2-22		5/24/05	VOCs	1,1-Dichloroethylene	2100	ug/L		470
AA-CLAY-2-22		5/24/05	VOCs	1,2-Dichloroethane	500	ug/L	U	140
AA-CLAY-2-22		5/24/05	VOCs	1,2-Dichloroethene (total)	40000	ug/L		600
AA-CLAY-2-22		5/24/05	VOCs	1,2-Dichloropropane	500	ug/L	U	130
AA-CLAY-2-22		5/24/05	VOCs	2-Butanone (MEK)	5000	ug/L	U	360
AA-CLAY-2-22		5/24/05	VOCs	4-Methyl-2-pentanone (MIBK)	1500	ug/L	J	230
AA-CLAY-2-22		5/24/05	VOCs	Acetone	13000	ug/L	U	3700
AA-CLAY-2-22		5/24/05	VOCs	Benzene	63000	ug/L		270
AA-CLAY-2-22		5/24/05	VOCs	Bromodichloromethane	500	ug/L	U	210
AA-CLAY-2-22		5/24/05	VOCs	Bromoform	500	ug/L	U	180
AA-CLAY-2-22		5/24/05	VOCs	Bromomethane	500	ug/L	U	470
AA-CLAY-2-22		5/24/05	VOCs	Carbon Disulfide	500	ug/L	U	380
AA-CLAY-2-22		5/24/05	VOCs	Carbon Tetrachloride	500	ug/L	U	460
AA-CLAY-2-22		5/24/05	VOCs	Chlorobenzene	4800	ug/L		210
AA-CLAY-2-22		5/24/05	VOCs	Chlorodibromomethane	500	ug/L	U	200
AA-CLAY-2-22		5/24/05	VOCs	Chloroethane	500	ug/L	U	450
AA-CLAY-2-22		5/24/05	VOCs	Chloroform	610	ug/L		260
AA-CLAY-2-22		5/24/05	VOCs	Chloromethane	500	ug/L	U	270
AA-CLAY-2-22		5/24/05	VOCs	cis-1,3-Dichloropropene	500	ug/L	U	210
AA-CLAY-2-22		5/24/05	VOCs	Dichloromethane	270	ug/L	J	220
AA-CLAY-2-22		5/24/05	VOCs	Ethylbenzene	1600	ug/L		310
AA-CLAY-2-22		5/24/05	VOCs	Methyl N-Butyl Ketone	5000	ug/L	U	200
AA-CLAY-2-22		5/24/05	VOCs	Styrene (Monomer)	500	ug/L	U	210
AA-CLAY-2-22		5/24/05	VOCs	Tetrachloroethene	500	ug/L	U	380
AA-CLAY-2-22		5/24/05	VOCs	Toluene	34000	ug/L		310
AA-CLAY-2-22		5/24/05	VOCs	trans-1,3-Dichloropropene	500	ug/L	U	180
AA-CLAY-2-22		5/24/05	VOCs	Trichloroethene	690	ug/L		360
AA-CLAY-2-22		5/24/05	VOCs	Vinyl chloride	510	ug/L		460
AA-CLAY-2-22		5/24/05	VOCs	Xylenes, Total	6700	ug/L		800
AA-CLAY-2-22		5/24/05	SVOCs	1,2,4-Trichlorobenzene	42	ug/L		0.52
AA-CLAY-2-22		5/24/05	SVOCs	1,2-Dichlorobenzene	820	ug/L	E	0.97
AA-CLAY-2-22		5/24/05	SVOCs	1,3-Dichlorobenzene	9.7	ug/L	U	0.53
AA-CLAY-2-22		5/24/05	SVOCs	1,4-Dichlorobenzene	690	ug/L	E	0.5
AA-CLAY-2-22		5/24/05	SVOCs	2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether)	9.7	ug/L	U	0.8
AA-CLAY-2-22		5/24/05	SVOCs	2,4,5-Trichlorophenol	9.7	ug/L	U	0.61
AA-CLAY-2-22		5/24/05	SVOCs	2,4,6-Trichlorophenol	5.7	ug/L	J	0.68
AA-CLAY-2-22		5/24/05	SVOCs	2,4-Dichlorophenol	86	ug/L		0.64
AA-CLAY-2-22		5/24/05	SVOCs	2,4-Dimethylphenol	25	ug/L		0.97
AA-CLAY-2-22		5/24/05	SVOCs	2,4-Dinitrophenol	49	ug/L	U	4.9
AA-CLAY-2-22		5/24/05	SVOCs	2,4-Dinitrotoluene	9.7	ug/L	U	0.54
AA-CLAY-2-22		5/24/05	SVOCs	2,6-Dinitrotoluene	9.7	ug/L	U	0.55
AA-CLAY-2-22		5/24/05	SVOCs	2-Chloronaphthalene	9.7	ug/L	U	0.6
AA-CLAY-2-22		5/24/05	SVOCs	2-Chlorophenol	9.7	ug/L	U	0.7
AA-CLAY-2-22		5/24/05	SVOCs	2-Methylnaphthalene	73	ug/L		0.51
AA-CLAY-2-22		5/24/05	SVOCs	2-Methylphenol (o-Cresol)	32	ug/L		0.68
AA-CLAY-2-22		5/24/05	SVOCs	2-Nitroaniline	49	ug/L	U	0.67
AA-CLAY-2-22		5/24/05	SVOCs	2-Nitrophenol	9.7	ug/L	U	0.71
AA-CLAY-2-22		5/24/05	SVOCs	3 & 4 Methylphenol	54	ug/L		0.64
AA-CLAY-2-22		5/24/05	SVOCs	3,3'-Dichlorobenzidine	19	ug/L	U	0.97
AA-CLAY-2-22		5/24/05	SVOCs	3-Nitroaniline	49	ug/L	U	0.67
AA-CLAY-2-22		5/24/05	SVOCs	4,6-Dinitro-2-methylphenol	49	ug/L	U	0.97
AA-CLAY-2-22		5/24/05	SVOCs	4-Bromophenyl Phenyl Ether	9.7	ug/L	U	0.83
AA-CLAY-2-22		5/24/05	SVOCs	4-Chloro-3-methylphenol	9.7	ug/L	U	0.53
AA-CLAY-2-22		5/24/05	SVOCs	4-Chlorophenyl Phenyl Ether	9.7	ug/L	U	0.54



**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-22		5/24/05	SVOCs	4-Nitrophenol	49	ug/L	U	3.3
AA-CLAY-2-22		5/24/05	SVOCs	Acenaphthene	3.6	ug/L	J	0.62
AA-CLAY-2-22		5/24/05	SVOCs	Acenaphthylene	9.7	ug/L	U	0.56
AA-CLAY-2-22		5/24/05	SVOCs	Anthracene	9.7	ug/L	U	0.85
AA-CLAY-2-22		5/24/05	SVOCs	Benzo(a)anthracene	9.7	ug/L	U	0.56
AA-CLAY-2-22		5/24/05	SVOCs	Benzo(a)pyrene	9.7	ug/L	U	0.97
AA-CLAY-2-22		5/24/05	SVOCs	Benzo(b)fluoranthene	9.7	ug/L	U	0.76
AA-CLAY-2-22		5/24/05	SVOCs	Benzo(g,h,i)perylene	9.7	ug/L	U	0.97
AA-CLAY-2-22		5/24/05	SVOCs	Benzo(k)fluoranthene	9.7	ug/L	U	0.71
AA-CLAY-2-22		5/24/05	SVOCs	Benzyl Butyl Phthalate	9.7	ug/L	U	0.68
AA-CLAY-2-22		5/24/05	SVOCs	bis(2-Chloroethoxy)methane	9.7	ug/L	U	0.76
AA-CLAY-2-22		5/24/05	SVOCs	bis(2-Chloroethyl)ether	9.7	ug/L	U	0.7
AA-CLAY-2-22		5/24/05	SVOCs	bis(2-Ethylhexyl)phthalate	1.5	ug/L	J	0.95
AA-CLAY-2-22		5/24/05	SVOCs	Carbazole	6	ug/L	J	0.8
AA-CLAY-2-22		5/24/05	SVOCs	Chrysene	9.7	ug/L	U	0.97
AA-CLAY-2-22		5/24/05	SVOCs	Dibenzo(a,h)anthracene	9.7	ug/L	U	0.97
AA-CLAY-2-22		5/24/05	SVOCs	Dibenzofuran	9.7	ug/L	U	0.67
AA-CLAY-2-22		5/24/05	SVOCs	Diethyl Phthalate	9.7	ug/L	U	0.57
AA-CLAY-2-22		5/24/05	SVOCs	Dimethyl Phthalate	9.7	ug/L	U	0.57
AA-CLAY-2-22		5/24/05	SVOCs	Di-n-butylphthalate	9.7	ug/L	U	0.8
AA-CLAY-2-22		5/24/05	SVOCs	Di-n-octylphthalate	9.7	ug/L	U	0.78
AA-CLAY-2-22		5/24/05	SVOCs	Dinoseb	9.7	ug/L	U	2.4
AA-CLAY-2-22		5/24/05	SVOCs	Fluoranthene	9.7	ug/L	U	0.97
AA-CLAY-2-22		5/24/05	SVOCs	Fluorene	3.5	ug/L	J	0.53
AA-CLAY-2-22		5/24/05	SVOCs	Hexachlorobenzene	9.7	ug/L	U	1.1
AA-CLAY-2-22		5/24/05	SVOCs	Hexachlorobutadiene	9.7	ug/L	U	0.97
AA-CLAY-2-22		5/24/05	SVOCs	Hexachlorocyclopentadiene	9.7	ug/L	U	4.9
AA-CLAY-2-22		5/24/05	SVOCs	Hexachloroethane	9.7	ug/L	U	0.97
AA-CLAY-2-22		5/24/05	SVOCs	Indeno(1,2,3-cd)pyrene	9.7	ug/L	U	0.6
AA-CLAY-2-22		5/24/05	SVOCs	Isophorone	9.7	ug/L	U	0.65
AA-CLAY-2-22		5/24/05	SVOCs	Naphthalene	110	ug/L		0.74
AA-CLAY-2-22		5/24/05	SVOCs	Nitrobenzene	9.7	ug/L	U	0.9
AA-CLAY-2-22		5/24/05	SVOCs	N-Nitroso-di-n-propylamine	9.7	ug/L	U	0.6
AA-CLAY-2-22		5/24/05	SVOCs	N-Nitrosodiphenylamine	9.7	ug/L	U	0.78
AA-CLAY-2-22		5/24/05	SVOCs	P-Chloroaniline	19	ug/L	U	0.5
AA-CLAY-2-22		5/24/05	SVOCs	Phenanthrene	13	ug/L		0.72
AA-CLAY-2-22		5/24/05	SVOCs	Phenol	160	ug/L		0.96
AA-CLAY-2-22		5/24/05	SVOCs	P-Nitroaniline	49	ug/L	U	0.83
AA-CLAY-2-22		5/24/05	SVOCs	Pyrene	1.4	ug/L	J	0.97
AA-CLAY-2-22	DL	5/24/05	SVOCs	1,2,4-Trichlorobenzene	100	ug/L		2.6
AA-CLAY-2-22	DL	5/24/05	SVOCs	1,2-Dichlorobenzene	1900	ug/L		4.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	1,3-Dichlorobenzene	49	ug/L	U	2.7
AA-CLAY-2-22	DL	5/24/05	SVOCs	1,4-Dichlorobenzene	1600	ug/L		2.5
AA-CLAY-2-22	DL	5/24/05	SVOCs	2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether)	49	ug/L	U	4
AA-CLAY-2-22	DL	5/24/05	SVOCs	2,4,5-Trichlorophenol	49	ug/L	U	3.1
AA-CLAY-2-22	DL	5/24/05	SVOCs	2,4,6-Trichlorophenol	49	ug/L	U	3.4
AA-CLAY-2-22	DL	5/24/05	SVOCs	2,4-Dichlorophenol	190	ug/L		3.2
AA-CLAY-2-22	DL	5/24/05	SVOCs	2,4-Dimethylphenol	54	ug/L		4.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	2,4-Dinitrophenol	240	ug/L	U	24
AA-CLAY-2-22	DL	5/24/05	SVOCs	2,4-Dinitrotoluene	49	ug/L	U	2.7
AA-CLAY-2-22	DL	5/24/05	SVOCs	2,6-Dinitrotoluene	49	ug/L	U	2.8
AA-CLAY-2-22	DL	5/24/05	SVOCs	2-Chloronaphthalene	49	ug/L	U	3
AA-CLAY-2-22	DL	5/24/05	SVOCs	2-Chlorophenol	8.2	ug/L	J	3.5
AA-CLAY-2-22	DL	5/24/05	SVOCs	2-Methylnaphthalene	150	ug/L		2.6
AA-CLAY-2-22	DL	5/24/05	SVOCs	2-Methylphenol (o-Cresol)	62	ug/L		3.4
AA-CLAY-2-22	DL	5/24/05	SVOCs	2-Nitroaniline	240	ug/L	U	3.3
AA-CLAY-2-22	DL	5/24/05	SVOCs	2-Nitrophenol	49	ug/L	U	3.5
AA-CLAY-2-22	DL	5/24/05	SVOCs	3 & 4 Methylphenol	100	ug/L		3.2



**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-22	DL	5/24/05	SVOCs	3,3'-Dichlorobenzidine	97	ug/L	U	4.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	3-Nitroaniline	240	ug/L	U	3.3
AA-CLAY-2-22	DL	5/24/05	SVOCs	4,6-Dinitro-2-methylphenol	240	ug/L	U	4.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	4-Bromophenyl Phenyl Ether	49	ug/L	U	4.1
AA-CLAY-2-22	DL	5/24/05	SVOCs	4-Chloro-3-methylphenol	49	ug/L	U	2.7
AA-CLAY-2-22	DL	5/24/05	SVOCs	4-Chlorophenyl Phenyl Ether	49	ug/L	U	2.7
AA-CLAY-2-22	DL	5/24/05	SVOCs	4-Nitrophenol	240	ug/L	U	17
AA-CLAY-2-22	DL	5/24/05	SVOCs	Acenaphthene	49	ug/L	U	3.1
AA-CLAY-2-22	DL	5/24/05	SVOCs	Acenaphthylene	49	ug/L	U	2.8
AA-CLAY-2-22	DL	5/24/05	SVOCs	Anthracene	49	ug/L	U	4.3
AA-CLAY-2-22	DL	5/24/05	SVOCs	Benzo(a)anthracene	49	ug/L	U	2.8
AA-CLAY-2-22	DL	5/24/05	SVOCs	Benzo(a)pyrene	49	ug/L	U	4.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	Benzo(b)fluoranthene	49	ug/L	U	3.8
AA-CLAY-2-22	DL	5/24/05	SVOCs	Benzo(g,h,i)perylene	49	ug/L	U	4.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	Benzo(k)fluoranthene	49	ug/L	U	3.5
AA-CLAY-2-22	DL	5/24/05	SVOCs	Benzyl Butyl Phthalate	49	ug/L	U	3.4
AA-CLAY-2-22	DL	5/24/05	SVOCs	bis(2-Chloroethoxy)methane	49	ug/L	U	3.8
AA-CLAY-2-22	DL	5/24/05	SVOCs	bis(2-Chloroethyl)ether	49	ug/L	U	3.5
AA-CLAY-2-22	DL	5/24/05	SVOCs	bis(2-Ethylhexyl)phthalate	49	ug/L	U	4.8
AA-CLAY-2-22	DL	5/24/05	SVOCs	Carbazole	14	ug/L	J	4
AA-CLAY-2-22	DL	5/24/05	SVOCs	Chrysene	49	ug/L	U	4.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	Dibenzo(a,h)anthracene	49	ug/L	U	4.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	Dibenzofuran	49	ug/L	U	3.3
AA-CLAY-2-22	DL	5/24/05	SVOCs	Diethyl Phthalate	49	ug/L	U	2.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	Dimethyl Phthalate	49	ug/L	U	2.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	Di-n-butylphthalate	49	ug/L	U	4
AA-CLAY-2-22	DL	5/24/05	SVOCs	Di-n-octylphthalate	49	ug/L	U	3.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	Dinoseb	49	ug/L	U	12
AA-CLAY-2-22	DL	5/24/05	SVOCs	Fluoranthene	49	ug/L	U	4.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	Fluorene	7.8	ug/L	J	2.7
AA-CLAY-2-22	DL	5/24/05	SVOCs	Hexachlorobenzene	49	ug/L	U	5.3
AA-CLAY-2-22	DL	5/24/05	SVOCs	Hexachlorobutadiene	49	ug/L	U	4.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	Hexachlorocyclopentadiene	49	ug/L	U	24
AA-CLAY-2-22	DL	5/24/05	SVOCs	Hexachloroethane	49	ug/L	U	4.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	Indeno(1,2,3-cd)pyrene	49	ug/L	U	3
AA-CLAY-2-22	DL	5/24/05	SVOCs	Isophorone	49	ug/L	U	3.3
AA-CLAY-2-22	DL	5/24/05	SVOCs	Naphthalene	160	ug/L		3.7
AA-CLAY-2-22	DL	5/24/05	SVOCs	Nitrobenzene	49	ug/L	U	4.5
AA-CLAY-2-22	DL	5/24/05	SVOCs	N-Nitroso-di-n-propylamine	49	ug/L	U	3
AA-CLAY-2-22	DL	5/24/05	SVOCs	N-Nitrosodiphenylamine	49	ug/L	U	3.9
AA-CLAY-2-22	DL	5/24/05	SVOCs	P-Chloroaniline	97	ug/L	U	2.5
AA-CLAY-2-22	DL	5/24/05	SVOCs	Phenanthrene	28	ug/L	J	3.6
AA-CLAY-2-22	DL	5/24/05	SVOCs	Phenol	290	ug/L		4.8
AA-CLAY-2-22	DL	5/24/05	SVOCs	P-Nitroaniline	240	ug/L	U	4.1
AA-CLAY-2-22	DL	5/24/05	SVOCs	Pyrene	49	ug/L	U	4.9
AA-CLAY-2-22		5/24/05	Herbicides	2,4,5-T	1.9	ug/L	U	0.3
AA-CLAY-2-22		5/24/05	Herbicides	2,4,5-TP (Silvex)	1.9	ug/L	U	0.13
AA-CLAY-2-22		5/24/05	Herbicides	2,4-D	0.86	ug/L	J	0.42
AA-CLAY-2-22		5/24/05	Herbicides	2,4-DB	1.9	ug/L	U	0.22
AA-CLAY-2-22		5/24/05	Herbicides	Dalapon	38	ug/L	U	0.91
AA-CLAY-2-22		5/24/05	Herbicides	Dicamba	1.9	ug/L	U	0.18
AA-CLAY-2-22		5/24/05	Herbicides	Dichlorprop	1.9	ug/L	U	0.11
AA-CLAY-2-22		5/24/05	Herbicides	MCPA (2-Methyl-4-Chlorophenoxyacetic Acid)	460	ug/L	U	46
AA-CLAY-2-22		5/24/05	Herbicides	MCPP	460	ug/L	U	38
AA-CLAY-2-22		5/24/05	Herbicides	Pentachlorophenol	11	ug/L		0.69
AA-CLAY-2-22		5/24/05	Metals	Aluminum	10	mg/L		0.03
AA-CLAY-2-22		5/24/05	Metals	Antimony	0.02	mg/L	U	0.004
AA-CLAY-2-22		5/24/05	Metals	Arsenic	0.21	mg/L		0.0042

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-22		5/24/05	Metals	Barium	0.38	mg/L		0.0012
AA-CLAY-2-22		5/24/05	Metals	Beryllium	0.00066	mg/L	J	0.00012
AA-CLAY-2-22		5/24/05	Metals	Cadmium	0.0013	mg/L	J	0.001
AA-CLAY-2-22		5/24/05	Metals	Calcium	45	mg/L		0.05
AA-CLAY-2-22		5/24/05	Metals	Chromium	0.066	mg/L		0.00083
AA-CLAY-2-22		5/24/05	Metals	Cobalt	0.012	mg/L		0.00071
AA-CLAY-2-22		5/24/05	Metals	Copper	0.036	mg/L		0.0017
AA-CLAY-2-22		5/24/05	Metals	Iron	69	mg/L		0.027
AA-CLAY-2-22		5/24/05	Metals	Lead	0.025	mg/L		0.0022
AA-CLAY-2-22		5/24/05	Metals	Magnesium	10	mg/L		0.0082
AA-CLAY-2-22		5/24/05	Metals	Manganese	1.7	mg/L		0.0014
AA-CLAY-2-22		5/24/05	Metals	Mercury	0.0002	mg/L	U	0.00008
AA-CLAY-2-22		5/24/05	Metals	Nickel	0.039	mg/L	J	0.0018
AA-CLAY-2-22		5/24/05	Metals	Potassium	7.6	mg/L		0.015
AA-CLAY-2-22		5/24/05	Metals	Selenium	0.01	mg/L	U	0.0062
AA-CLAY-2-22		5/24/05	Metals	Silver	0.01	mg/L	U	0.001
AA-CLAY-2-22		5/24/05	Metals	Sodium	99	mg/L		6
AA-CLAY-2-22		5/24/05	Metals	Thallium	0.025	mg/L	U	0.0098
AA-CLAY-2-22		5/24/05	Metals	Vanadium	0.036	mg/L		0.0014
AA-CLAY-2-22		5/24/05	Metals	Zinc	0.74	mg/L		0.003
AA-CLAY-2-22		5/24/05	Other	Ammonia	3.3	mg/L		0.03
AA-CLAY-2-42		5/24/05	VOCs	1,1,1-Trichloroethane	500	ug/L	U	400
AA-CLAY-2-42		5/24/05	VOCs	1,1,2,2-Tetrachloroethane	500	ug/L	U	110
AA-CLAY-2-42		5/24/05	VOCs	1,1,2-Trichloroethane	500	ug/L	U	190
AA-CLAY-2-42		5/24/05	VOCs	1,1-Dichloroethane	2000	ug/L		280
AA-CLAY-2-42		5/24/05	VOCs	1,1-Dichloroethylene	500	ug/L	U	470
AA-CLAY-2-42		5/24/05	VOCs	1,2-Dichloroethane	500	ug/L	U	140
AA-CLAY-2-42		5/24/05	VOCs	1,2-Dichloroethene (total)	1000	ug/L		600
AA-CLAY-2-42		5/24/05	VOCs	1,2-Dichloropropane	500	ug/L	U	130
AA-CLAY-2-42		5/24/05	VOCs	2-Butanone (MEK)	3200	ug/L	J	360
AA-CLAY-2-42		5/24/05	VOCs	4-Methyl-2-pentanone (MIBK)	18000	ug/L		230
AA-CLAY-2-42		5/24/05	VOCs	Acetone	13000	ug/L	U	3700
AA-CLAY-2-42		5/24/05	VOCs	Benzene	5500	ug/L		270
AA-CLAY-2-42		5/24/05	VOCs	Bromodichloromethane	500	ug/L	U	210
AA-CLAY-2-42		5/24/05	VOCs	Bromoform	500	ug/L	U	180
AA-CLAY-2-42		5/24/05	VOCs	Bromomethane	500	ug/L	U	470
AA-CLAY-2-42		5/24/05	VOCs	Carbon Disulfide	500	ug/L	U	380
AA-CLAY-2-42		5/24/05	VOCs	Carbon Tetrachloride	500	ug/L	U	460
AA-CLAY-2-42		5/24/05	VOCs	Chlorobenzene	4600	ug/L		210
AA-CLAY-2-42		5/24/05	VOCs	Chlorodibromomethane	500	ug/L	U	200
AA-CLAY-2-42		5/24/05	VOCs	Chloroethane	480	ug/L	J	450
AA-CLAY-2-42		5/24/05	VOCs	Chloroform	500	ug/L	U	260
AA-CLAY-2-42		5/24/05	VOCs	Chloromethane	500	ug/L	U	270
AA-CLAY-2-42		5/24/05	VOCs	cis-1,3-Dichloropropene	500	ug/L	U	210
AA-CLAY-2-42		5/24/05	VOCs	Dichloromethane	31000	ug/L		220
AA-CLAY-2-42		5/24/05	VOCs	Ethylbenzene	510	ug/L		310
AA-CLAY-2-42		5/24/05	VOCs	Methyl N-Butyl Ketone	5000	ug/L	U	200
AA-CLAY-2-42		5/24/05	VOCs	Styrene (Monomer)	500	ug/L	U	210
AA-CLAY-2-42		5/24/05	VOCs	Tetrachloroethene	500	ug/L	U	380
AA-CLAY-2-42		5/24/05	VOCs	Toluene	8600	ug/L		310
AA-CLAY-2-42		5/24/05	VOCs	trans-1,3-Dichloropropene	500	ug/L	U	180
AA-CLAY-2-42		5/24/05	VOCs	Trichloroethene	500	ug/L	U	360
AA-CLAY-2-42		5/24/05	VOCs	Vinyl chloride	1400	ug/L		460
AA-CLAY-2-42		5/24/05	VOCs	Xylenes, Total	2100	ug/L		800
AA-CLAY-2-42		5/24/05	SVOCs	1,2,4-Trichlorobenzene	2.5	ug/L	J	0.52
AA-CLAY-2-42		5/24/05	SVOCs	1,2-Dichlorobenzene	130	ug/L		0.96
AA-CLAY-2-42		5/24/05	SVOCs	1,3-Dichlorobenzene	9.6	ug/L	U	0.53
AA-CLAY-2-42		5/24/05	SVOCs	1,4-Dichlorobenzene	330	ug/L	E	0.5

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-42		5/24/05	SVOCs	2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether)	9.6	ug/L	U	0.79
AA-CLAY-2-42		5/24/05	SVOCs	2,4,5-Trichlorophenol	9.6	ug/L	U	0.61
AA-CLAY-2-42		5/24/05	SVOCs	2,4,6-Trichlorophenol	9.6	ug/L	U	0.67
AA-CLAY-2-42		5/24/05	SVOCs	2,4-Dichlorophenol	9.6	ug/L	U	0.63
AA-CLAY-2-42		5/24/05	SVOCs	2,4-Dimethylphenol	13	ug/L		0.96
AA-CLAY-2-42		5/24/05	SVOCs	2,4-Dinitrophenol	48	ug/L	U	4.8
AA-CLAY-2-42		5/24/05	SVOCs	2,4-Dinitrotoluene	9.6	ug/L	U	0.54
AA-CLAY-2-42		5/24/05	SVOCs	2,6-Dinitrotoluene	9.6	ug/L	U	0.55
AA-CLAY-2-42		5/24/05	SVOCs	2-Chloronaphthalene	9.6	ug/L	U	0.6
AA-CLAY-2-42		5/24/05	SVOCs	2-Chlorophenol	16	ug/L		0.69
AA-CLAY-2-42		5/24/05	SVOCs	2-Methylnaphthalene	2.3	ug/L	J	0.51
AA-CLAY-2-42		5/24/05	SVOCs	2-Methylphenol (o-Cresol)	9.6	ug/L	U	0.67
AA-CLAY-2-42		5/24/05	SVOCs	2-Nitroaniline	48	ug/L	U	0.66
AA-CLAY-2-42		5/24/05	SVOCs	2-Nitrophenol	9.6	ug/L	U	0.7
AA-CLAY-2-42		5/24/05	SVOCs	3 & 4 Methylphenol	110	ug/L		0.63
AA-CLAY-2-42		5/24/05	SVOCs	3,3'-Dichlorobenzidine	19	ug/L	U	0.96
AA-CLAY-2-42		5/24/05	SVOCs	3-Nitroaniline	48	ug/L	U	0.66
AA-CLAY-2-42		5/24/05	SVOCs	4,6-Dinitro-2-methylphenol	48	ug/L	U	0.96
AA-CLAY-2-42		5/24/05	SVOCs	4-Bromophenyl Phenyl Ether	9.6	ug/L	U	0.82
AA-CLAY-2-42		5/24/05	SVOCs	4-Chloro-3-methylphenol	9.6	ug/L	U	0.53
AA-CLAY-2-42		5/24/05	SVOCs	4-Chlorophenyl Phenyl Ether	9.6	ug/L	U	0.54
AA-CLAY-2-42		5/24/05	SVOCs	4-Nitrophenol	48	ug/L	U	3.3
AA-CLAY-2-42		5/24/05	SVOCs	Acenaphthene	9.6	ug/L	U	0.62
AA-CLAY-2-42		5/24/05	SVOCs	Acenaphthylene	9.6	ug/L	U	0.56
AA-CLAY-2-42		5/24/05	SVOCs	Anthracene	9.6	ug/L	U	0.85
AA-CLAY-2-42		5/24/05	SVOCs	Benzo(a)anthracene	9.6	ug/L	U	0.56
AA-CLAY-2-42		5/24/05	SVOCs	Benzo(a)pyrene	9.6	ug/L	U	0.96
AA-CLAY-2-42		5/24/05	SVOCs	Benzo(b)fluoranthene	9.6	ug/L	U	0.75
AA-CLAY-2-42		5/24/05	SVOCs	Benzo(g,h,i)perylene	9.6	ug/L	U	0.96
AA-CLAY-2-42		5/24/05	SVOCs	Benzo(k)fluoranthene	9.6	ug/L	U	0.7
AA-CLAY-2-42		5/24/05	SVOCs	Benzyl Butyl Phthalate	9.6	ug/L	U	0.67
AA-CLAY-2-42		5/24/05	SVOCs	bis(2-Chloroethoxy)methane	9.6	ug/L	U	0.75
AA-CLAY-2-42		5/24/05	SVOCs	bis(2-Chloroethyl)ether	9.6	ug/L	U	0.69
AA-CLAY-2-42		5/24/05	SVOCs	bis(2-Ethylhexyl)phthalate	9.6	ug/L	U	0.94
AA-CLAY-2-42		5/24/05	SVOCs	Carbazole	9.6	ug/L	U	0.79
AA-CLAY-2-42		5/24/05	SVOCs	Chrysene	9.6	ug/L	U	0.96
AA-CLAY-2-42		5/24/05	SVOCs	Dibenzo(a,h)anthracene	9.6	ug/L	U	0.96
AA-CLAY-2-42		5/24/05	SVOCs	Dibenzofuran	9.6	ug/L	U	0.66
AA-CLAY-2-42		5/24/05	SVOCs	Diethyl Phthalate	9.6	ug/L	U	0.57
AA-CLAY-2-42		5/24/05	SVOCs	Dimethyl Phthalate	9.6	ug/L	U	0.57
AA-CLAY-2-42		5/24/05	SVOCs	Di-n-butylphthalate	9.6	ug/L	U	0.79
AA-CLAY-2-42		5/24/05	SVOCs	Di-n-octylphthalate	9.6	ug/L	U	0.77
AA-CLAY-2-42		5/24/05	SVOCs	Dinoseb	9.6	ug/L	U	2.4
AA-CLAY-2-42		5/24/05	SVOCs	Fluoranthene	9.6	ug/L	U	0.96
AA-CLAY-2-42		5/24/05	SVOCs	Fluorene	9.6	ug/L	U	0.53
AA-CLAY-2-42		5/24/05	SVOCs	Hexachlorobenzene	9.6	ug/L	U	1.1
AA-CLAY-2-42		5/24/05	SVOCs	Hexachlorobutadiene	9.6	ug/L	U	0.96
AA-CLAY-2-42		5/24/05	SVOCs	Hexachlorocyclopentadiene	9.6	ug/L	U	4.8
AA-CLAY-2-42		5/24/05	SVOCs	Hexachloroethane	9.6	ug/L	U	0.96
AA-CLAY-2-42		5/24/05	SVOCs	Indeno(1,2,3-cd)pyrene	9.6	ug/L	U	0.6
AA-CLAY-2-42		5/24/05	SVOCs	Isophorone	9.6	ug/L	U	0.64
AA-CLAY-2-42		5/24/05	SVOCs	Naphthalene	22	ug/L		0.73
AA-CLAY-2-42		5/24/05	SVOCs	Nitrobenzene	9.6	ug/L	U	0.89
AA-CLAY-2-42		5/24/05	SVOCs	N-Nitroso-di-n-propylamine	9.6	ug/L	U	0.6
AA-CLAY-2-42		5/24/05	SVOCs	N-Nitrosodiphenylamine	9.6	ug/L	U	0.77
AA-CLAY-2-42		5/24/05	SVOCs	P-Chloroaniline	19	ug/L	U	0.5
AA-CLAY-2-42		5/24/05	SVOCs	Phenanthrene	1.6	ug/L	J	0.71
AA-CLAY-2-42		5/24/05	SVOCs	Phenol	110	ug/L		0.95



**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-42		5/24/05	SVOCs	P-Nitroaniline	48	ug/L	U	0.82
AA-CLAY-2-42		5/24/05	SVOCs	Pyrene	9.6	ug/L	U	0.96
AA-CLAY-2-42	DL	5/24/05	SVOCs	1,2,4-Trichlorobenzene	2.8	ug/L	JD	1
AA-CLAY-2-42	DL	5/24/05	SVOCs	1,2-Dichlorobenzene	130	ug/L	D	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	1,3-Dichlorobenzene	19	ug/L	U	1.1
AA-CLAY-2-42	DL	5/24/05	SVOCs	1,4-Dichlorobenzene	340	ug/L	D	1
AA-CLAY-2-42	DL	5/24/05	SVOCs	2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether)	19	ug/L	U	1.6
AA-CLAY-2-42	DL	5/24/05	SVOCs	2,4,5-Trichlorophenol	19	ug/L	U	1.2
AA-CLAY-2-42	DL	5/24/05	SVOCs	2,4,6-Trichlorophenol	19	ug/L	U	1.3
AA-CLAY-2-42	DL	5/24/05	SVOCs	2,4-Dichlorophenol	19	ug/L	U	1.3
AA-CLAY-2-42	DL	5/24/05	SVOCs	2,4-Dimethylphenol	14	ug/L	JD	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	2,4-Dinitrophenol	96	ug/L	U	9.6
AA-CLAY-2-42	DL	5/24/05	SVOCs	2,4-Dinitrotoluene	19	ug/L	U	1.1
AA-CLAY-2-42	DL	5/24/05	SVOCs	2,6-Dinitrotoluene	19	ug/L	U	1.1
AA-CLAY-2-42	DL	5/24/05	SVOCs	2-Chloronaphthalene	19	ug/L	U	1.2
AA-CLAY-2-42	DL	5/24/05	SVOCs	2-Chlorophenol	19	ug/L	U	1.4
AA-CLAY-2-42	DL	5/24/05	SVOCs	2-Methylnaphthalene	2.5	ug/L	JD	1
AA-CLAY-2-42	DL	5/24/05	SVOCs	2-Methylphenol (o-Cresol)	67	ug/L	D	1.3
AA-CLAY-2-42	DL	5/24/05	SVOCs	2-Nitroaniline	96	ug/L	U	1.3
AA-CLAY-2-42	DL	5/24/05	SVOCs	2-Nitrophenol	19	ug/L	U	1.4
AA-CLAY-2-42	DL	5/24/05	SVOCs	3 & 4 Methylphenol	110	ug/L	D	1.3
AA-CLAY-2-42	DL	5/24/05	SVOCs	3,3'-Dichlorobenzidine	38	ug/L	U	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	3-Nitroaniline	96	ug/L	U	1.3
AA-CLAY-2-42	DL	5/24/05	SVOCs	4,6-Dinitro-2-methylphenol	96	ug/L	U	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	4-Bromophenyl Phenyl Ether	19	ug/L	U	1.6
AA-CLAY-2-42	DL	5/24/05	SVOCs	4-Chloro-3-methylphenol	19	ug/L	U	1.1
AA-CLAY-2-42	DL	5/24/05	SVOCs	4-Chlorophenyl Phenyl Ether	19	ug/L	U	1.1
AA-CLAY-2-42	DL	5/24/05	SVOCs	4-Nitrophenol	96	ug/L	U	6.5
AA-CLAY-2-42	DL	5/24/05	SVOCs	Acenaphthene	19	ug/L	U	1.2
AA-CLAY-2-42	DL	5/24/05	SVOCs	Acenaphthylene	19	ug/L	U	1.1
AA-CLAY-2-42	DL	5/24/05	SVOCs	Anthracene	19	ug/L	U	1.7
AA-CLAY-2-42	DL	5/24/05	SVOCs	Benzo(a)anthracene	19	ug/L	U	1.1
AA-CLAY-2-42	DL	5/24/05	SVOCs	Benzo(a)pyrene	19	ug/L	U	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	Benzo(b)fluoranthene	19	ug/L	U	1.5
AA-CLAY-2-42	DL	5/24/05	SVOCs	Benzo(g,h,i)perylene	19	ug/L	U	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	Benzo(k)fluoranthene	19	ug/L	U	1.4
AA-CLAY-2-42	DL	5/24/05	SVOCs	Benzyl Butyl Phthalate	19	ug/L	U	1.3
AA-CLAY-2-42	DL	5/24/05	SVOCs	bis(2-Chloroethoxy)methane	19	ug/L	U	1.5
AA-CLAY-2-42	DL	5/24/05	SVOCs	bis(2-Chloroethyl)ether	19	ug/L	U	1.4
AA-CLAY-2-42	DL	5/24/05	SVOCs	bis(2-Ethylhexyl)phthalate	19	ug/L	U	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	Carbazole	19	ug/L	U	1.6
AA-CLAY-2-42	DL	5/24/05	SVOCs	Chrysene	19	ug/L	U	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	Dibenzo(a,h)anthracene	19	ug/L	U	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	Dibenzofuran	19	ug/L	U	1.3
AA-CLAY-2-42	DL	5/24/05	SVOCs	Diethyl Phthalate	19	ug/L	U	1.1
AA-CLAY-2-42	DL	5/24/05	SVOCs	Dimethyl Phthalate	19	ug/L	U	1.1
AA-CLAY-2-42	DL	5/24/05	SVOCs	Di-n-butylphthalate	19	ug/L	U	1.6
AA-CLAY-2-42	DL	5/24/05	SVOCs	Di-n-octylphthalate	19	ug/L	U	1.5
AA-CLAY-2-42	DL	5/24/05	SVOCs	Dinoseb	19	ug/L	U	4.8
AA-CLAY-2-42	DL	5/24/05	SVOCs	Fluoranthene	19	ug/L	U	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	Fluorene	19	ug/L	U	1.1
AA-CLAY-2-42	DL	5/24/05	SVOCs	Hexachlorobenzene	19	ug/L	U	2.1
AA-CLAY-2-42	DL	5/24/05	SVOCs	Hexachlorobutadiene	19	ug/L	U	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	Hexachlorocyclopentadiene	19	ug/L	U	9.6
AA-CLAY-2-42	DL	5/24/05	SVOCs	Hexachloroethane	19	ug/L	U	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	Indeno(1,2,3-cd)pyrene	19	ug/L	U	1.2
AA-CLAY-2-42	DL	5/24/05	SVOCs	Isophorone	19	ug/L	U	1.3
AA-CLAY-2-42	DL	5/24/05	SVOCs	Naphthalene	19	ug/L	U	1.5

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-42	DL	5/24/05	SVOCs	Nitrobenzene	19	ug/L	U	1.8
AA-CLAY-2-42	DL	5/24/05	SVOCs	N-Nitroso-di-n-propylamine	19	ug/L	U	1.2
AA-CLAY-2-42	DL	5/24/05	SVOCs	N-Nitrosodiphenylamine	19	ug/L	U	1.5
AA-CLAY-2-42	DL	5/24/05	SVOCs	P-Chloroaniline	38	ug/L	U	1
AA-CLAY-2-42	DL	5/24/05	SVOCs	Phenanthrene	19	ug/L	U	1.4
AA-CLAY-2-42	DL	5/24/05	SVOCs	Phenol	110	ug/L	D	1.9
AA-CLAY-2-42	DL	5/24/05	SVOCs	P-Nitroaniline	96	ug/L	U	1.6
AA-CLAY-2-42	DL	5/24/05	SVOCs	Pyrene	19	ug/L	U	1.9
AA-CLAY-2-42		5/24/05	Herbicides	2,4,5-T	0.48	ug/L	U	0.077
AA-CLAY-2-42		5/24/05	Herbicides	2,4,5-TP (Silvex)	0.48	ug/L	U	0.032
AA-CLAY-2-42		5/24/05	Herbicides	2,4-D	0.48	ug/L	U	0.11
AA-CLAY-2-42		5/24/05	Herbicides	2,4-DB	0.48	ug/L	U	0.055
AA-CLAY-2-42		5/24/05	Herbicides	Dalapon	9.6	ug/L	U	0.23
AA-CLAY-2-42		5/24/05	Herbicides	Dicamba	0.48	ug/L	U	0.046
AA-CLAY-2-42		5/24/05	Herbicides	Dichlorprop	1.2	ug/L		0.029
AA-CLAY-2-42		5/24/05	Herbicides	MCPA (2-Methyl-4-Chlorophenoxyacetic Acid)	120	ug/L	U	12
AA-CLAY-2-42		5/24/05	Herbicides	MCPP	120	ug/L	U	9.6
AA-CLAY-2-42		5/24/05	Herbicides	Pentachlorophenol	0.24	ug/L	U	0.17
AA-CLAY-2-42		5/24/05	Metals	Aluminum	9.7	mg/L		0.03
AA-CLAY-2-42		5/24/05	Metals	Antimony	0.02	mg/L	U	0.004
AA-CLAY-2-42		5/24/05	Metals	Arsenic	0.027	mg/L		0.0042
AA-CLAY-2-42		5/24/05	Metals	Barium	1	mg/L		0.0012
AA-CLAY-2-42		5/24/05	Metals	Beryllium	0.00044	mg/L	J	0.00012
AA-CLAY-2-42		5/24/05	Metals	Cadmium	0.005	mg/L	U	0.001
AA-CLAY-2-42		5/24/05	Metals	Calcium	300	mg/L		0.05
AA-CLAY-2-42		5/24/05	Metals	Chromium	0.083	mg/L		0.00083
AA-CLAY-2-42		5/24/05	Metals	Cobalt	0.0083	mg/L	J	0.00071
AA-CLAY-2-42		5/24/05	Metals	Copper	0.022	mg/L		0.0017
AA-CLAY-2-42		5/24/05	Metals	Iron	100	mg/L		0.027
AA-CLAY-2-42		5/24/05	Metals	Lead	0.014	mg/L		0.0022
AA-CLAY-2-42		5/24/05	Metals	Magnesium	56	mg/L		0.0082
AA-CLAY-2-42		5/24/05	Metals	Manganese	3.8	mg/L		0.0014
AA-CLAY-2-42		5/24/05	Metals	Mercury	0.0002	mg/L	U	0.00008
AA-CLAY-2-42		5/24/05	Metals	Nickel	0.029	mg/L	J	0.0018
AA-CLAY-2-42		5/24/05	Metals	Potassium	14	mg/L		0.015
AA-CLAY-2-42		5/24/05	Metals	Selenium	0.01	mg/L	U	0.0062
AA-CLAY-2-42		5/24/05	Metals	Silver	0.01	mg/L	U	0.001
AA-CLAY-2-42		5/24/05	Metals	Sodium	90	mg/L		6
AA-CLAY-2-42		5/24/05	Metals	Thallium	0.025	mg/L	U	0.0098
AA-CLAY-2-42		5/24/05	Metals	Vanadium	0.02	mg/L		0.0014
AA-CLAY-2-42		5/24/05	Metals	Zinc	0.4	mg/L		0.003
AA-CLAY-2-42		5/24/05	Other	Ammonia	0.51	mg/L		0.015
AA-CLAY-2-42-D		5/24/05	VOCs	1,1,1-Trichloroethane	500	ug/L	U	400
AA-CLAY-2-42-D		5/24/05	VOCs	1,1,2,2-Tetrachloroethane	500	ug/L	U	110
AA-CLAY-2-42-D		5/24/05	VOCs	1,1,2-Trichloroethane	500	ug/L	U	190
AA-CLAY-2-42-D		5/24/05	VOCs	1,1-Dichloroethane	2100	ug/L		280
AA-CLAY-2-42-D		5/24/05	VOCs	1,1-Dichloroethylene	500	ug/L	U	470
AA-CLAY-2-42-D		5/24/05	VOCs	1,2-Dichloroethane	500	ug/L	U	140
AA-CLAY-2-42-D		5/24/05	VOCs	1,2-Dichloroethene (total)	1200	ug/L		600
AA-CLAY-2-42-D		5/24/05	VOCs	1,2-Dichloropropane	500	ug/L	U	130
AA-CLAY-2-42-D		5/24/05	VOCs	2-Butanone (MEK)	4000	ug/L	J	360
AA-CLAY-2-42-D		5/24/05	VOCs	4-Methyl-2-pentanone (MIBK)	24000	ug/L		230
AA-CLAY-2-42-D		5/24/05	VOCs	Acetone	13000	ug/L	U	3700
AA-CLAY-2-42-D		5/24/05	VOCs	Benzene	6300	ug/L		270
AA-CLAY-2-42-D		5/24/05	VOCs	Bromodichloromethane	500	ug/L	U	210
AA-CLAY-2-42-D		5/24/05	VOCs	Bromoform	500	ug/L	U	180
AA-CLAY-2-42-D		5/24/05	VOCs	Bromomethane	500	ug/L	U	470
AA-CLAY-2-42-D		5/24/05	VOCs	Carbon Disulfide	500	ug/L	U	380

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-42-D		5/24/05	VOCs	Carbon Tetrachloride	500	ug/L	U	460
AA-CLAY-2-42-D		5/24/05	VOCs	Chlorobenzene	5200	ug/L		210
AA-CLAY-2-42-D		5/24/05	VOCs	Chlorodibromomethane	500	ug/L	U	200
AA-CLAY-2-42-D		5/24/05	VOCs	Chloroethane	540	ug/L		450
AA-CLAY-2-42-D		5/24/05	VOCs	Chloroform	500	ug/L	U	260
AA-CLAY-2-42-D		5/24/05	VOCs	Chloromethane	500	ug/L	U	270
AA-CLAY-2-42-D		5/24/05	VOCs	cis-1,3-Dichloropropene	500	ug/L	U	210
AA-CLAY-2-42-D		5/24/05	VOCs	Dichloromethane	34000	ug/L		220
AA-CLAY-2-42-D		5/24/05	VOCs	Ethylbenzene	580	ug/L		310
AA-CLAY-2-42-D		5/24/05	VOCs	Methyl N-Butyl Ketone	400	ug/L	J	200
AA-CLAY-2-42-D		5/24/05	VOCs	Styrene (Monomer)	500	ug/L	U	210
AA-CLAY-2-42-D		5/24/05	VOCs	Tetrachloroethene	500	ug/L	U	380
AA-CLAY-2-42-D		5/24/05	VOCs	Toluene	10000	ug/L		310
AA-CLAY-2-42-D		5/24/05	VOCs	trans-1,3-Dichloropropene	500	ug/L	U	180
AA-CLAY-2-42-D		5/24/05	VOCs	Trichloroethene	500	ug/L	U	360
AA-CLAY-2-42-D		5/24/05	VOCs	Vinyl chloride	1400	ug/L		460
AA-CLAY-2-42-D		5/24/05	VOCs	Xylenes, Total	2400	ug/L		800
AA-CLAY-2-42-D		5/24/05	SVOCs	1,2,4-Trichlorobenzene	2.4	ug/L	J	0.51
AA-CLAY-2-42-D		5/24/05	SVOCs	1,2-Dichlorobenzene	120	ug/L		0.95
AA-CLAY-2-42-D		5/24/05	SVOCs	1,3-Dichlorobenzene	5.9	ug/L	J	0.52
AA-CLAY-2-42-D		5/24/05	SVOCs	1,4-Dichlorobenzene	330	ug/L		0.5
AA-CLAY-2-42-D		5/24/05	SVOCs	2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether)	4.2	ug/L	J	0.78
AA-CLAY-2-42-D		5/24/05	SVOCs	2,4,5-Trichlorophenol	9.5	ug/L	U	0.6
AA-CLAY-2-42-D		5/24/05	SVOCs	2,4,6-Trichlorophenol	9.5	ug/L	U	0.67
AA-CLAY-2-42-D		5/24/05	SVOCs	2,4-Dichlorophenol	1.5	ug/L	J	0.63
AA-CLAY-2-42-D		5/24/05	SVOCs	2,4-Dimethylphenol	12	ug/L		0.95
AA-CLAY-2-42-D		5/24/05	SVOCs	2,4-Dinitrophenol	14	ug/L	J	4.8
AA-CLAY-2-42-D		5/24/05	SVOCs	2,4-Dinitrotoluene	9.5	ug/L	U	0.53
AA-CLAY-2-42-D		5/24/05	SVOCs	2,6-Dinitrotoluene	9.5	ug/L	U	0.54
AA-CLAY-2-42-D		5/24/05	SVOCs	2-Chloronaphthalene	9.5	ug/L	U	0.59
AA-CLAY-2-42-D		5/24/05	SVOCs	2-Chlorophenol	8.2	ug/L	J	0.69
AA-CLAY-2-42-D		5/24/05	SVOCs	2-Methylnaphthalene	2.3	ug/L	J	0.5
AA-CLAY-2-42-D		5/24/05	SVOCs	2-Methylphenol (o-Cresol)	52	ug/L		0.67
AA-CLAY-2-42-D		5/24/05	SVOCs	2-Nitroaniline	0.75	ug/L	J	0.66
AA-CLAY-2-42-D		5/24/05	SVOCs	2-Nitrophenol	9.5	ug/L	U	0.7
AA-CLAY-2-42-D		5/24/05	SVOCs	3 & 4 Methylphenol	3	ug/L	J	0.63
AA-CLAY-2-42-D		5/24/05	SVOCs	3,3'-Dichlorobenzidine	19	ug/L	U	0.95
AA-CLAY-2-42-D		5/24/05	SVOCs	3-Nitroaniline	48	ug/L	U	0.66
AA-CLAY-2-42-D		5/24/05	SVOCs	4,6-Dinitro-2-methylphenol	48	ug/L	U	0.95
AA-CLAY-2-42-D		5/24/05	SVOCs	4-Bromophenyl Phenyl Ether	2.7	ug/L	J	0.81
AA-CLAY-2-42-D		5/24/05	SVOCs	4-Chloro-3-methylphenol	96	ug/L		0.52
AA-CLAY-2-42-D		5/24/05	SVOCs	4-Chlorophenyl Phenyl Ether	9.5	ug/L	U	0.53
AA-CLAY-2-42-D		5/24/05	SVOCs	4-Nitrophenol	48	ug/L	U	3.2
AA-CLAY-2-42-D		5/24/05	SVOCs	Acenaphthene	9.5	ug/L	U	0.61
AA-CLAY-2-42-D		5/24/05	SVOCs	Acenaphthylene	9.5	ug/L	U	0.55
AA-CLAY-2-42-D		5/24/05	SVOCs	Anthracene	1.3	ug/L	J	0.84
AA-CLAY-2-42-D		5/24/05	SVOCs	Benzo(a)anthracene	0.62	ug/L	J	0.55
AA-CLAY-2-42-D		5/24/05	SVOCs	Benzo(a)pyrene	9.5	ug/L	U	0.95
AA-CLAY-2-42-D		5/24/05	SVOCs	Benzo(b)fluoranthene	0.99	ug/L	J	0.74
AA-CLAY-2-42-D		5/24/05	SVOCs	Benzo(g,h,i)perylene	9.5	ug/L	U	0.95
AA-CLAY-2-42-D		5/24/05	SVOCs	Benzo(k)fluoranthene	9.5	ug/L	U	0.7
AA-CLAY-2-42-D		5/24/05	SVOCs	Benzyl Butyl Phthalate	1000	ug/L		0.67
AA-CLAY-2-42-D		5/24/05	SVOCs	bis(2-Chloroethoxy)methane	9.5	ug/L	U	0.74
AA-CLAY-2-42-D		5/24/05	SVOCs	bis(2-Chloroethyl)ether	6.3	ug/L	J	0.69
AA-CLAY-2-42-D		5/24/05	SVOCs	bis(2-Ethylhexyl)phthalate	250	ug/L		0.93
AA-CLAY-2-42-D		5/24/05	SVOCs	Carbazole	9.5	ug/L	U	0.78
AA-CLAY-2-42-D		5/24/05	SVOCs	Chrysene	1.1	ug/L	J	0.95
AA-CLAY-2-42-D		5/24/05	SVOCs	Dibenzo(a,h)anthracene	9.5	ug/L	U	0.95



**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-42-D		5/24/05	SVOCs	Dibenzofuran	9.5	ug/L	U	0.66
AA-CLAY-2-42-D		5/24/05	SVOCs	Diethyl Phthalate	0.89	ug/L	J	0.56
AA-CLAY-2-42-D		5/24/05	SVOCs	Dimethyl Phthalate	11	ug/L		0.56
AA-CLAY-2-42-D		5/24/05	SVOCs	Di-n-butylphthalate	57	ug/L		0.78
AA-CLAY-2-42-D		5/24/05	SVOCs	Di-n-octylphthalate	88	ug/L		0.76
AA-CLAY-2-42-D		5/24/05	SVOCs	Dinoseb	9.5	ug/L	U	2.4
AA-CLAY-2-42-D		5/24/05	SVOCs	Fluoranthene	9.5	ug/L	U	0.95
AA-CLAY-2-42-D		5/24/05	SVOCs	Fluorene	9.5	ug/L	U	0.52
AA-CLAY-2-42-D		5/24/05	SVOCs	Hexachlorobenzene	9.5	ug/L	U	1
AA-CLAY-2-42-D		5/24/05	SVOCs	Hexachlorobutadiene	9.5	ug/L	U	0.95
AA-CLAY-2-42-D		5/24/05	SVOCs	Hexachlorocyclopentadiene	9.5	ug/L	U	4.8
AA-CLAY-2-42-D		5/24/05	SVOCs	Hexachloroethane	9.5	ug/L	U	0.95
AA-CLAY-2-42-D		5/24/05	SVOCs	Indeno(1,2,3-cd)pyrene	9.5	ug/L	U	0.59
AA-CLAY-2-42-D		5/24/05	SVOCs	Isophorone	2.3	ug/L	J	0.64
AA-CLAY-2-42-D		5/24/05	SVOCs	Naphthalene	8.8	ug/L	J	0.72
AA-CLAY-2-42-D		5/24/05	SVOCs	Nitrobenzene	5.1	ug/L	J	0.89
AA-CLAY-2-42-D		5/24/05	SVOCs	N-Nitroso-di-n-propylamine	1.1	ug/L	J	0.59
AA-CLAY-2-42-D		5/24/05	SVOCs	N-Nitrosodiphenylamine	0.91	ug/L	J	0.76
AA-CLAY-2-42-D		5/24/05	SVOCs	P-Chloroaniline	2.6	ug/L	J	0.5
AA-CLAY-2-42-D		5/24/05	SVOCs	Phenanthrene	1.4	ug/L	J	0.7
AA-CLAY-2-42-D		5/24/05	SVOCs	Phenol	71	ug/L		0.94
AA-CLAY-2-42-D		5/24/05	SVOCs	P-Nitroaniline	48	ug/L	U	0.81
AA-CLAY-2-42-D		5/24/05	SVOCs	Pyrene	0.98	ug/L	J	0.95
AA-CLAY-2-42-D		5/24/05	Herbicides	2,4,5-T	0.48	ug/L	U	0.077
AA-CLAY-2-42-D		5/24/05	Herbicides	2,4,5-TP (Silvex)	0.48	ug/L	U	0.032
AA-CLAY-2-42-D		5/24/05	Herbicides	2,4-D	0.48	ug/L	U	0.11
AA-CLAY-2-42-D		5/24/05	Herbicides	2,4-DB	0.48	ug/L	U	0.055
AA-CLAY-2-42-D		5/24/05	Herbicides	Dalapon	9.6	ug/L	U	0.23
AA-CLAY-2-42-D		5/24/05	Herbicides	Dicamba	0.48	ug/L	U	0.046
AA-CLAY-2-42-D		5/24/05	Herbicides	Dichlorprop	0.73	ug/L		0.029
AA-CLAY-2-42-D		5/24/05	Herbicides	MCPA (2-Methyl-4-Chlorophenoxyacetic Acid)	120	ug/L	U	12
AA-CLAY-2-42-D		5/24/05	Herbicides	MCPP	120	ug/L	U	9.6
AA-CLAY-2-42-D		5/24/05	Herbicides	Pentachlorophenol	0.24	ug/L	U	0.17
AA-CLAY-2-42-D		5/24/05	Metals	Aluminum	8.3	mg/L		0.03
AA-CLAY-2-42-D		5/24/05	Metals	Antimony	0.02	mg/L	U	0.004
AA-CLAY-2-42-D		5/24/05	Metals	Arsenic	0.025	mg/L		0.0042
AA-CLAY-2-42-D		5/24/05	Metals	Barium	1	mg/L		0.0012
AA-CLAY-2-42-D		5/24/05	Metals	Beryllium	0.00039	mg/L	J	0.00012
AA-CLAY-2-42-D		5/24/05	Metals	Cadmium	0.005	mg/L	U	0.001
AA-CLAY-2-42-D		5/24/05	Metals	Calcium	300	mg/L		0.05
AA-CLAY-2-42-D		5/24/05	Metals	Chromium	0.082	mg/L		0.00083
AA-CLAY-2-42-D		5/24/05	Metals	Cobalt	0.0083	mg/L	J	0.00071
AA-CLAY-2-42-D		5/24/05	Metals	Copper	0.021	mg/L		0.0017
AA-CLAY-2-42-D		5/24/05	Metals	Iron	100	mg/L		0.027
AA-CLAY-2-42-D		5/24/05	Metals	Lead	0.013	mg/L		0.0022
AA-CLAY-2-42-D		5/24/05	Metals	Magnesium	56	mg/L		0.0082
AA-CLAY-2-42-D		5/24/05	Metals	Manganese	3.8	mg/L		0.0014
AA-CLAY-2-42-D		5/24/05	Metals	Mercury	0.0002	mg/L	U	0.00008
AA-CLAY-2-42-D		5/24/05	Metals	Nickel	0.027	mg/L	J	0.0018
AA-CLAY-2-42-D		5/24/05	Metals	Potassium	14	mg/L		0.015
AA-CLAY-2-42-D		5/24/05	Metals	Selenium	0.01	mg/L	U	0.0062
AA-CLAY-2-42-D		5/24/05	Metals	Silver	0.01	mg/L	U	0.001
AA-CLAY-2-42-D		5/24/05	Metals	Sodium	89	mg/L		6
AA-CLAY-2-42-D		5/24/05	Metals	Thallium	0.025	mg/L	U	0.0098
AA-CLAY-2-42-D		5/24/05	Metals	Vanadium	0.018	mg/L		0.0014
AA-CLAY-2-42-D		5/24/05	Metals	Zinc	0.42	mg/L		0.003
AA-CLAY-2-42-D		5/24/05	Other	Ammonia	0.48	mg/L		0.015
AA-CLAY-2-62		5/24/05	VOCs	1,1,1-Trichloroethane	320	ug/L		79

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-62		5/24/05	VOCs	1,1,2,2-Tetrachloroethane	100	ug/L	U	21
AA-CLAY-2-62		5/24/05	VOCs	1,1,2-Trichloroethane	100	ug/L	U	37
AA-CLAY-2-62		5/24/05	VOCs	1,1-Dichloroethane	230	ug/L		56
AA-CLAY-2-62		5/24/05	VOCs	1,1-Dichloroethylene	100	ug/L	U	93
AA-CLAY-2-62		5/24/05	VOCs	1,2-Dichloroethane	100	ug/L	U	28
AA-CLAY-2-62		5/24/05	VOCs	1,2-Dichloroethene (total)	700	ug/L		120
AA-CLAY-2-62		5/24/05	VOCs	1,2-Dichloropropane	100	ug/L	U	26
AA-CLAY-2-62		5/24/05	VOCs	2-Butanone (MEK)	1000	ug/L	U	72
AA-CLAY-2-62		5/24/05	VOCs	4-Methyl-2-pentanone (MIBK)	1000	ug/L	U	45
AA-CLAY-2-62		5/24/05	VOCs	Acetone	2500	ug/L	U	730
AA-CLAY-2-62		5/24/05	VOCs	Benzene	600	ug/L		54
AA-CLAY-2-62		5/24/05	VOCs	Bromodichloromethane	100	ug/L	U	42
AA-CLAY-2-62		5/24/05	VOCs	Bromoform	100	ug/L	U	36
AA-CLAY-2-62		5/24/05	VOCs	Bromomethane	100	ug/L	U	93
AA-CLAY-2-62		5/24/05	VOCs	Carbon Disulfide	100	ug/L	U	75
AA-CLAY-2-62		5/24/05	VOCs	Carbon Tetrachloride	100	ug/L	U	91
AA-CLAY-2-62		5/24/05	VOCs	Chlorobenzene	280	ug/L		41
AA-CLAY-2-62		5/24/05	VOCs	Chlorodibromomethane	100	ug/L	U	40
AA-CLAY-2-62		5/24/05	VOCs	Chloroethane	100	ug/L	U	89
AA-CLAY-2-62		5/24/05	VOCs	Chloroform	100	ug/L	U	52
AA-CLAY-2-62		5/24/05	VOCs	Chloromethane	100	ug/L	U	53
AA-CLAY-2-62		5/24/05	VOCs	cis-1,3-Dichloropropene	100	ug/L	U	41
AA-CLAY-2-62		5/24/05	VOCs	Dichloromethane	5400	ug/L		44
AA-CLAY-2-62		5/24/05	VOCs	Ethylbenzene	100	ug/L	U	62
AA-CLAY-2-62		5/24/05	VOCs	Methyl N-Butyl Ketone	1000	ug/L	U	39
AA-CLAY-2-62		5/24/05	VOCs	Styrene (Monomer)	100	ug/L	U	42
AA-CLAY-2-62		5/24/05	VOCs	Tetrachloroethene	100	ug/L	U	75
AA-CLAY-2-62		5/24/05	VOCs	Toluene	770	ug/L		62
AA-CLAY-2-62		5/24/05	VOCs	trans-1,3-Dichloropropene	100	ug/L	U	36
AA-CLAY-2-62		5/24/05	VOCs	Trichloroethene	100	ug/L	U	71
AA-CLAY-2-62		5/24/05	VOCs	Vinyl chloride	100	ug/L	U	92
AA-CLAY-2-62		5/24/05	VOCs	Xylenes, Total	200	ug/L	U	160
AA-CLAY-2-62		5/24/05	SVOCs	1,2,4-Trichlorobenzene	1.8	ug/L	J	0.51
AA-CLAY-2-62		5/24/05	SVOCs	1,2-Dichlorobenzene	23	ug/L		0.95
AA-CLAY-2-62		5/24/05	SVOCs	1,3-Dichlorobenzene	9.5	ug/L	U	0.52
AA-CLAY-2-62		5/24/05	SVOCs	1,4-Dichlorobenzene	34	ug/L		0.5
AA-CLAY-2-62		5/24/05	SVOCs	2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether)	9.5	ug/L	U	0.78
AA-CLAY-2-62		5/24/05	SVOCs	2,4,5-Trichlorophenol	9.5	ug/L	U	0.6
AA-CLAY-2-62		5/24/05	SVOCs	2,4,6-Trichlorophenol	9.5	ug/L	U	0.67
AA-CLAY-2-62		5/24/05	SVOCs	2,4-Dichlorophenol	9.5	ug/L	U	0.63
AA-CLAY-2-62		5/24/05	SVOCs	2,4-Dimethylphenol	9.5	ug/L	U	0.95
AA-CLAY-2-62		5/24/05	SVOCs	2,4-Dinitrophenol	48	ug/L	U	4.8
AA-CLAY-2-62		5/24/05	SVOCs	2,4-Dinitrotoluene	9.5	ug/L	U	0.53
AA-CLAY-2-62		5/24/05	SVOCs	2,6-Dinitrotoluene	9.5	ug/L	U	0.54
AA-CLAY-2-62		5/24/05	SVOCs	2-Chloronaphthalene	9.5	ug/L	U	0.59
AA-CLAY-2-62		5/24/05	SVOCs	2-Chlorophenol	9.5	ug/L	U	0.69
AA-CLAY-2-62		5/24/05	SVOCs	2-Methylnaphthalene	2.5	ug/L	J	0.5
AA-CLAY-2-62		5/24/05	SVOCs	2-Methylphenol (o-Cresol)	8.8	ug/L	J	0.67
AA-CLAY-2-62		5/24/05	SVOCs	2-Nitroaniline	48	ug/L	U	0.66
AA-CLAY-2-62		5/24/05	SVOCs	2-Nitrophenol	9.5	ug/L	U	0.7
AA-CLAY-2-62		5/24/05	SVOCs	3 & 4 Methylphenol	11	ug/L		0.63
AA-CLAY-2-62		5/24/05	SVOCs	3,3'-Dichlorobenzidine	19	ug/L	U	0.95
AA-CLAY-2-62		5/24/05	SVOCs	3-Nitroaniline	48	ug/L	U	0.66
AA-CLAY-2-62		5/24/05	SVOCs	4,6-Dinitro-2-methylphenol	48	ug/L	U	0.95
AA-CLAY-2-62		5/24/05	SVOCs	4-Bromophenyl Phenyl Ether	9.5	ug/L	U	0.81
AA-CLAY-2-62		5/24/05	SVOCs	4-Chloro-3-methylphenol	9.5	ug/L	U	0.52
AA-CLAY-2-62		5/24/05	SVOCs	4-Chlorophenyl Phenyl Ether	9.5	ug/L	U	0.53
AA-CLAY-2-62		5/24/05	SVOCs	4-Nitrophenol	48	ug/L	U	3.2

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-62		5/24/05	SVOCs	Acenaphthene	9.5	ug/L	U	0.61
AA-CLAY-2-62		5/24/05	SVOCs	Acenaphthylene	9.5	ug/L	U	0.55
AA-CLAY-2-62		5/24/05	SVOCs	Anthracene	9.5	ug/L	U	0.84
AA-CLAY-2-62		5/24/05	SVOCs	Benzo(a)anthracene	9.5	ug/L	U	0.55
AA-CLAY-2-62		5/24/05	SVOCs	Benzo(a)pyrene	9.5	ug/L	U	0.95
AA-CLAY-2-62		5/24/05	SVOCs	Benzo(b)fluoranthene	9.5	ug/L	U	0.74
AA-CLAY-2-62		5/24/05	SVOCs	Benzo(g,h,i)perylene	9.5	ug/L	U	0.95
AA-CLAY-2-62		5/24/05	SVOCs	Benzo(k)fluoranthene	9.5	ug/L	U	0.7
AA-CLAY-2-62		5/24/05	SVOCs	Benzyl Butyl Phthalate	9.5	ug/L	U	0.67
AA-CLAY-2-62		5/24/05	SVOCs	bis(2-Chloroethoxy)methane	9.5	ug/L	U	0.74
AA-CLAY-2-62		5/24/05	SVOCs	bis(2-Chloroethyl)ether	9.5	ug/L	U	0.69
AA-CLAY-2-62		5/24/05	SVOCs	bis(2-Ethylhexyl)phthalate	9.5	ug/L	U	0.93
AA-CLAY-2-62		5/24/05	SVOCs	Carbazole	9.5	ug/L	U	0.78
AA-CLAY-2-62		5/24/05	SVOCs	Chrysene	9.5	ug/L	U	0.95
AA-CLAY-2-62		5/24/05	SVOCs	Dibenzo(a,h)anthracene	9.5	ug/L	U	0.95
AA-CLAY-2-62		5/24/05	SVOCs	Dibenzofuran	9.5	ug/L	U	0.66
AA-CLAY-2-62		5/24/05	SVOCs	Diethyl Phthalate	9.5	ug/L	U	0.56
AA-CLAY-2-62		5/24/05	SVOCs	Dimethyl Phthalate	9.5	ug/L	U	0.56
AA-CLAY-2-62		5/24/05	SVOCs	Di-n-butylphthalate	9.5	ug/L	U	0.78
AA-CLAY-2-62		5/24/05	SVOCs	Di-n-octylphthalate	9.5	ug/L	U	0.76
AA-CLAY-2-62		5/24/05	SVOCs	Dinoseb	9.5	ug/L	U	2.4
AA-CLAY-2-62		5/24/05	SVOCs	Fluoranthene	9.5	ug/L	U	0.95
AA-CLAY-2-62		5/24/05	SVOCs	Fluorene	9.5	ug/L	U	0.52
AA-CLAY-2-62		5/24/05	SVOCs	Hexachlorobenzene	9.5	ug/L	U	1
AA-CLAY-2-62		5/24/05	SVOCs	Hexachlorobutadiene	9.5	ug/L	U	0.95
AA-CLAY-2-62		5/24/05	SVOCs	Hexachlorocyclopentadiene	9.5	ug/L	U	4.8
AA-CLAY-2-62		5/24/05	SVOCs	Hexachloroethane	9.5	ug/L	U	0.95
AA-CLAY-2-62		5/24/05	SVOCs	Indeno(1,2,3-cd)pyrene	9.5	ug/L	U	0.59
AA-CLAY-2-62		5/24/05	SVOCs	Isophorone	9.5	ug/L	U	0.64
AA-CLAY-2-62		5/24/05	SVOCs	Naphthalene	9.5	ug/L	U	0.72
AA-CLAY-2-62		5/24/05	SVOCs	Nitrobenzene	9.5	ug/L	U	0.89
AA-CLAY-2-62		5/24/05	SVOCs	N-Nitroso-di-n-propylamine	9.5	ug/L	U	0.59
AA-CLAY-2-62		5/24/05	SVOCs	N-Nitrosodiphenylamine	9.5	ug/L	U	0.76
AA-CLAY-2-62		5/24/05	SVOCs	P-Chloroaniline	19	ug/L	U	0.5
AA-CLAY-2-62		5/24/05	SVOCs	Phenanthrene	2	ug/L	J	0.7
AA-CLAY-2-62		5/24/05	SVOCs	Phenol	24	ug/L		0.94
AA-CLAY-2-62		5/24/05	SVOCs	P-Nitroaniline	48	ug/L	U	0.81
AA-CLAY-2-62		5/24/05	SVOCs	Pyrene	9.5	ug/L	U	0.95
AA-CLAY-2-62		5/24/05	Herbicides	2,4,5-T	0.49	ug/L	U	0.078
AA-CLAY-2-62		5/24/05	Herbicides	2,4,5-TP (Silvex)	0.49	ug/L	U	0.032
AA-CLAY-2-62		5/24/05	Herbicides	2,4-D	0.49	ug/L	U	0.11
AA-CLAY-2-62		5/24/05	Herbicides	2,4-DB	0.49	ug/L	U	0.055
AA-CLAY-2-62		5/24/05	Herbicides	Dalapon	9.7	ug/L	U	0.23
AA-CLAY-2-62		5/24/05	Herbicides	Dicamba	0.49	ug/L	U	0.047
AA-CLAY-2-62		5/24/05	Herbicides	Dichlorprop	0.49	ug/L	U	0.029
AA-CLAY-2-62		5/24/05	Herbicides	MCPA (2-Methyl-4-Chlorophenoxyacetic Acid)	120	ug/L	U	12
AA-CLAY-2-62		5/24/05	Herbicides	MCPP	120	ug/L	U	9.7
AA-CLAY-2-62		5/24/05	Herbicides	Pentachlorophenol	0.24	ug/L	U	0.17
AA-CLAY-2-62		5/24/05	Metals	Aluminum	21	mg/L		0.03
AA-CLAY-2-62		5/24/05	Metals	Antimony	0.0059	mg/L	J	0.004
AA-CLAY-2-62		5/24/05	Metals	Arsenic	0.028	mg/L		0.0042
AA-CLAY-2-62		5/24/05	Metals	Barium	0.81	mg/L		0.0012
AA-CLAY-2-62		5/24/05	Metals	Beryllium	0.0012	mg/L	J	0.00012
AA-CLAY-2-62		5/24/05	Metals	Cadmium	0.0014	mg/L	J	0.001
AA-CLAY-2-62		5/24/05	Metals	Calcium	260	mg/L		0.05
AA-CLAY-2-62		5/24/05	Metals	Chromium	0.41	mg/L		0.00083
AA-CLAY-2-62		5/24/05	Metals	Cobalt	0.024	mg/L		0.00071
AA-CLAY-2-62		5/24/05	Metals	Copper	0.057	mg/L		0.0017



**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-62		5/24/05	Metals	Iron	110	mg/L		0.027
AA-CLAY-2-62		5/24/05	Metals	Lead	0.045	mg/L		0.0022
AA-CLAY-2-62		5/24/05	Metals	Magnesium	55	mg/L		0.0082
AA-CLAY-2-62		5/24/05	Metals	Manganese	3.4	mg/L		0.0014
AA-CLAY-2-62		5/24/05	Metals	Mercury	0.0002	mg/L	U	0.00008
AA-CLAY-2-62		5/24/05	Metals	Nickel	0.099	mg/L		0.0018
AA-CLAY-2-62		5/24/05	Metals	Potassium	16	mg/L		0.015
AA-CLAY-2-62		5/24/05	Metals	Selenium	0.01	mg/L	U	0.0062
AA-CLAY-2-62		5/24/05	Metals	Silver	0.01	mg/L	U	0.001
AA-CLAY-2-62		5/24/05	Metals	Sodium	57	mg/L		0.3
AA-CLAY-2-62		5/24/05	Metals	Thallium	0.025	mg/L	U	0.0098
AA-CLAY-2-62		5/24/05	Metals	Vanadium	0.05	mg/L		0.0014
AA-CLAY-2-62		5/24/05	Metals	Zinc	1.3	mg/L		0.003
AA-CLAY-2-62		5/24/05	Other	Ammonia	0.38	mg/L		0.015
AA-CLAY-2-82		5/25/05	VOCs	1,1,1-Trichloroethane	400	ug/L		40
AA-CLAY-2-82		5/25/05	VOCs	1,1,2,2-Tetrachloroethane	50	ug/L	U	11
AA-CLAY-2-82		5/25/05	VOCs	1,1,2-Trichloroethane	23	ug/L	J	19
AA-CLAY-2-82		5/25/05	VOCs	1,1-Dichloroethane	340	ug/L		28
AA-CLAY-2-82		5/25/05	VOCs	1,1-Dichloroethylene	130	ug/L		47
AA-CLAY-2-82		5/25/05	VOCs	1,2-Dichloroethane	50	ug/L	U	14
AA-CLAY-2-82		5/25/05	VOCs	1,2-Dichloroethene (total)	1500	ug/L		60
AA-CLAY-2-82		5/25/05	VOCs	1,2-Dichloropropane	50	ug/L	U	13
AA-CLAY-2-82		5/25/05	VOCs	2-Butanone (MEK)	500	ug/L	U	36
AA-CLAY-2-82		5/25/05	VOCs	4-Methyl-2-pentanone (MIBK)	3800	ug/L		23
AA-CLAY-2-82		5/25/05	VOCs	Acetone	1300	ug/L	U	370
AA-CLAY-2-82		5/25/05	VOCs	Benzene	730	ug/L		27
AA-CLAY-2-82		5/25/05	VOCs	Bromodichloromethane	50	ug/L	U	21
AA-CLAY-2-82		5/25/05	VOCs	Bromoform	50	ug/L	U	18
AA-CLAY-2-82		5/25/05	VOCs	Bromomethane	50	ug/L	U	47
AA-CLAY-2-82		5/25/05	VOCs	Carbon Disulfide	50	ug/L	U	38
AA-CLAY-2-82		5/25/05	VOCs	Carbon Tetrachloride	50	ug/L	U	46
AA-CLAY-2-82		5/25/05	VOCs	Chlorobenzene	480	ug/L		21
AA-CLAY-2-82		5/25/05	VOCs	Chlorodibromomethane	50	ug/L	U	20
AA-CLAY-2-82		5/25/05	VOCs	Chloroethane	50	ug/L	U	45
AA-CLAY-2-82		5/25/05	VOCs	Chloroform	58	ug/L		26
AA-CLAY-2-82		5/25/05	VOCs	Chloromethane	50	ug/L	U	27
AA-CLAY-2-82		5/25/05	VOCs	cis-1,3-Dichloropropene	50	ug/L	U	21
AA-CLAY-2-82		5/25/05	VOCs	Dichloromethane	12000	ug/L	E	22
AA-CLAY-2-82		5/25/05	VOCs	Ethylbenzene	45	ug/L	J	31
AA-CLAY-2-82		5/25/05	VOCs	Methyl N-Butyl Ketone	48	ug/L	J	20
AA-CLAY-2-82		5/25/05	VOCs	Styrene (Monomer)	50	ug/L	U	21
AA-CLAY-2-82		5/25/05	VOCs	Tetrachloroethene	50	ug/L	U	38
AA-CLAY-2-82		5/25/05	VOCs	Toluene	970	ug/L		31
AA-CLAY-2-82		5/25/05	VOCs	trans-1,3-Dichloropropene	50	ug/L	U	18
AA-CLAY-2-82		5/25/05	VOCs	Trichloroethene	50	ug/L	U	36
AA-CLAY-2-82		5/25/05	VOCs	Vinyl chloride	51	ug/L		46
AA-CLAY-2-82		5/25/05	VOCs	Xylenes, Total	180	ug/L		80
AA-CLAY-2-82	DL	5/25/05	VOCs	1,1,1-Trichloroethane	450	ug/L	D	79
AA-CLAY-2-82	DL	5/25/05	VOCs	1,1,2,2-Tetrachloroethane	100	ug/L	U	21
AA-CLAY-2-82	DL	5/25/05	VOCs	1,1,2-Trichloroethane	100	ug/L	U	37
AA-CLAY-2-82	DL	5/25/05	VOCs	1,1-Dichloroethane	350	ug/L	D	56
AA-CLAY-2-82	DL	5/25/05	VOCs	1,1-Dichloroethylene	130	ug/L	D	93
AA-CLAY-2-82	DL	5/25/05	VOCs	1,2-Dichloroethane	100	ug/L	U	28
AA-CLAY-2-82	DL	5/25/05	VOCs	1,2-Dichloroethene (total)	1600	ug/L	D	120
AA-CLAY-2-82	DL	5/25/05	VOCs	1,2-Dichloropropane	100	ug/L	U	26
AA-CLAY-2-82	DL	5/25/05	VOCs	2-Butanone (MEK)	1000	ug/L	U	72
AA-CLAY-2-82	DL	5/25/05	VOCs	4-Methyl-2-pentanone (MIBK)	4000	ug/L	D	45
AA-CLAY-2-82	DL	5/25/05	VOCs	Acetone	2500	ug/L	U	730
AA-CLAY-2-82	DL	5/25/05	VOCs	Benzene	810	ug/L	D	54

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-82	DL	5/25/05	VOCs	Bromodichloromethane	100	ug/L	U	42
AA-CLAY-2-82	DL	5/25/05	VOCs	Bromoform	100	ug/L	U	36
AA-CLAY-2-82	DL	5/25/05	VOCs	Bromomethane	100	ug/L	U	93
AA-CLAY-2-82	DL	5/25/05	VOCs	Carbon Disulfide	100	ug/L	U	75
AA-CLAY-2-82	DL	5/25/05	VOCs	Carbon Tetrachloride	100	ug/L	U	91
AA-CLAY-2-82	DL	5/25/05	VOCs	Chlorobenzene	520	ug/L	D	41
AA-CLAY-2-82	DL	5/25/05	VOCs	Chlorodibromomethane	100	ug/L	U	40
AA-CLAY-2-82	DL	5/25/05	VOCs	Chloroethane	100	ug/L	U	89
AA-CLAY-2-82	DL	5/25/05	VOCs	Chloroform	60	ug/L	JD	52
AA-CLAY-2-82	DL	5/25/05	VOCs	Chloromethane	100	ug/L	U	53
AA-CLAY-2-82	DL	5/25/05	VOCs	cis-1,3-Dichloropropene	100	ug/L	U	41
AA-CLAY-2-82	DL	5/25/05	VOCs	Dichloromethane	13000	ug/L	D	44
AA-CLAY-2-82	DL	5/25/05	VOCs	Ethylbenzene	100	ug/L	U	62
AA-CLAY-2-82	DL	5/25/05	VOCs	Methyl N-Butyl Ketone	1000	ug/L	U	39
AA-CLAY-2-82	DL	5/25/05	VOCs	Styrene (Monomer)	100	ug/L	U	42
AA-CLAY-2-82	DL	5/25/05	VOCs	Tetrachloroethene	100	ug/L	U	75
AA-CLAY-2-82	DL	5/25/05	VOCs	Toluene	1000	ug/L	D	62
AA-CLAY-2-82	DL	5/25/05	VOCs	trans-1,3-Dichloropropene	100	ug/L	U	36
AA-CLAY-2-82	DL	5/25/05	VOCs	Trichloroethene	100	ug/L	U	71
AA-CLAY-2-82	DL	5/25/05	VOCs	Vinyl chloride	100	ug/L	U	92
AA-CLAY-2-82	DL	5/25/05	VOCs	Xylenes, Total	200	ug/L	D	160
AA-CLAY-2-82		5/25/05	SVOCs	1,2,4-Trichlorobenzene	0.97	ug/L	J	0.5
AA-CLAY-2-82		5/25/05	SVOCs	1,2-Dichlorobenzene	5.5	ug/L	J	0.93
AA-CLAY-2-82		5/25/05	SVOCs	1,3-Dichlorobenzene	9.3	ug/L	U	0.51
AA-CLAY-2-82		5/25/05	SVOCs	1,4-Dichlorobenzene	13	ug/L		0.49
AA-CLAY-2-82		5/25/05	SVOCs	2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether)	9.3	ug/L	U	0.77
AA-CLAY-2-82		5/25/05	SVOCs	2,4,5-Trichlorophenol	9.3	ug/L	U	0.59
AA-CLAY-2-82		5/25/05	SVOCs	2,4,6-Trichlorophenol	9.3	ug/L	U	0.65
AA-CLAY-2-82		5/25/05	SVOCs	2,4-Dichlorophenol	9.3	ug/L	U	0.62
AA-CLAY-2-82		5/25/05	SVOCs	2,4-Dimethylphenol	9.3	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	SVOCs	2,4-Dinitrophenol	47	ug/L	U	4.7
AA-CLAY-2-82		5/25/05	SVOCs	2,4-Dinitrotoluene	9.3	ug/L	U	0.52
AA-CLAY-2-82		5/25/05	SVOCs	2,6-Dinitrotoluene	9.3	ug/L	U	0.53
AA-CLAY-2-82		5/25/05	SVOCs	2-Chloronaphthalene	9.3	ug/L	U	0.58
AA-CLAY-2-82		5/25/05	SVOCs	2-Chlorophenol	4.4	ug/L	J	0.67
AA-CLAY-2-82		5/25/05	SVOCs	2-Methylnaphthalene	1.5	ug/L	J	0.5
AA-CLAY-2-82		5/25/05	SVOCs	2-Methylphenol (o-Cresol)	3.7	ug/L	J	0.65
AA-CLAY-2-82		5/25/05	SVOCs	2-Nitroaniline	47	ug/L	U	0.64
AA-CLAY-2-82		5/25/05	SVOCs	2-Nitrophenol	9.3	ug/L	U	0.68
AA-CLAY-2-82		5/25/05	SVOCs	3 & 4 Methylphenol	4.2	ug/L	J	0.62
AA-CLAY-2-82		5/25/05	SVOCs	3,3'-Dichlorobenzidine	19	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	SVOCs	3-Nitroaniline	47	ug/L	U	0.64
AA-CLAY-2-82		5/25/05	SVOCs	4,6-Dinitro-2-methylphenol	47	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	SVOCs	4-Bromophenyl Phenyl Ether	9.3	ug/L	U	0.79
AA-CLAY-2-82		5/25/05	SVOCs	4-Chloro-3-methylphenol	9.3	ug/L	U	0.51
AA-CLAY-2-82		5/25/05	SVOCs	4-Chlorophenyl Phenyl Ether	9.3	ug/L	U	0.52
AA-CLAY-2-82		5/25/05	SVOCs	4-Nitrophenol	47	ug/L	U	3.2
AA-CLAY-2-82		5/25/05	SVOCs	Acenaphthene	9.3	ug/L	U	0.6
AA-CLAY-2-82		5/25/05	SVOCs	Acenaphthylene	9.3	ug/L	U	0.54
AA-CLAY-2-82		5/25/05	SVOCs	Anthracene	9.3	ug/L	U	0.82
AA-CLAY-2-82		5/25/05	SVOCs	Benzo(a)anthracene	9.3	ug/L	U	0.54
AA-CLAY-2-82		5/25/05	SVOCs	Benzo(a)pyrene	9.3	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	SVOCs	Benzo(b)fluoranthene	9.3	ug/L	U	0.73
AA-CLAY-2-82		5/25/05	SVOCs	Benzo(g,h,i)perylene	9.3	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	SVOCs	Benzo(k)fluoranthene	9.3	ug/L	U	0.68
AA-CLAY-2-82		5/25/05	SVOCs	Benzyl Butyl Phthalate	9.3	ug/L	U	0.65
AA-CLAY-2-82		5/25/05	SVOCs	bis(2-Chloroethoxy)methane	9.3	ug/L	U	0.73
AA-CLAY-2-82		5/25/05	SVOCs	bis(2-Chloroethyl)ether	9.3	ug/L	U	0.67

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-82		5/25/05	SVOCs	bis(2-Ethylhexyl)phthalate	9.3	ug/L	U	0.92
AA-CLAY-2-82		5/25/05	SVOCs	Carbazole	9.3	ug/L	U	0.77
AA-CLAY-2-82		5/25/05	SVOCs	Chrysene	9.3	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	SVOCs	Dibenzo(a,h)anthracene	9.3	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	SVOCs	Dibenzofuran	9.3	ug/L	U	0.64
AA-CLAY-2-82		5/25/05	SVOCs	Diethyl Phthalate	9.3	ug/L	U	0.55
AA-CLAY-2-82		5/25/05	SVOCs	Dimethyl Phthalate	9.3	ug/L	U	0.55
AA-CLAY-2-82		5/25/05	SVOCs	Di-n-butylphthalate	9.3	ug/L	U	0.77
AA-CLAY-2-82		5/25/05	SVOCs	Di-n-octylphthalate	9.3	ug/L	U	0.75
AA-CLAY-2-82		5/25/05	SVOCs	Dinoseb	9.3	ug/L	U	2.3
AA-CLAY-2-82		5/25/05	SVOCs	Fluoranthene	9.3	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	SVOCs	Fluorene	9.3	ug/L	U	0.51
AA-CLAY-2-82		5/25/05	SVOCs	Hexachlorobenzene	9.3	ug/L	U	1
AA-CLAY-2-82		5/25/05	SVOCs	Hexachlorobutadiene	9.3	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	SVOCs	Hexachlorocyclopentadiene	9.3	ug/L	U	4.7
AA-CLAY-2-82		5/25/05	SVOCs	Hexachloroethane	9.3	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	SVOCs	Indeno(1,2,3-cd)pyrene	0.59	ug/L	J	0.58
AA-CLAY-2-82		5/25/05	SVOCs	Isophorone	9.3	ug/L	U	0.63
AA-CLAY-2-82		5/25/05	SVOCs	Naphthalene	9.3	ug/L	U	0.71
AA-CLAY-2-82		5/25/05	SVOCs	Nitrobenzene	9.3	ug/L	U	0.87
AA-CLAY-2-82		5/25/05	SVOCs	N-Nitroso-di-n-propylamine	9.3	ug/L	U	0.58
AA-CLAY-2-82		5/25/05	SVOCs	N-Nitrosodiphenylamine	9.3	ug/L	U	0.75
AA-CLAY-2-82		5/25/05	SVOCs	P-Chloroaniline	19	ug/L	U	0.49
AA-CLAY-2-82		5/25/05	SVOCs	Phenanthrene	0.94	ug/L	J	0.69
AA-CLAY-2-82		5/25/05	SVOCs	Phenol	9.3	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	SVOCs	P-Nitroaniline	47	ug/L	U	0.79
AA-CLAY-2-82		5/25/05	SVOCs	Pyrene	9.3	ug/L	U	0.93
AA-CLAY-2-82		5/25/05	Herbicides	2,4,5-T	0.48	ug/L	U	0.077
AA-CLAY-2-82		5/25/05	Herbicides	2,4,5-TP (Silvex)	0.48	ug/L	U	0.032
AA-CLAY-2-82		5/25/05	Herbicides	2,4-D	0.48	ug/L	U	0.11
AA-CLAY-2-82		5/25/05	Herbicides	2,4-DB	0.48	ug/L	U	0.055
AA-CLAY-2-82		5/25/05	Herbicides	Dalapon	9.6	ug/L	U	0.23
AA-CLAY-2-82		5/25/05	Herbicides	Dicamba	0.48	ug/L	U	0.046
AA-CLAY-2-82		5/25/05	Herbicides	Dichlorprop	0.48	ug/L	U	0.029
AA-CLAY-2-82		5/25/05	Herbicides	MCPA (2-Methyl-4-Chlorophenoxyacetic Acid)	120	ug/L	U	12
AA-CLAY-2-82		5/25/05	Herbicides	MCPP	49	ug/L	J	9.6
AA-CLAY-2-82		5/25/05	Herbicides	Pentachlorophenol	0.24	ug/L	U	0.17
AA-CLAY-2-82		5/25/05	Metals	Aluminum	31	mg/L		0.03
AA-CLAY-2-82		5/25/05	Metals	Antimony	0.02	mg/L	U	0.004
AA-CLAY-2-82		5/25/05	Metals	Arsenic	0.037	mg/L		0.0042
AA-CLAY-2-82		5/25/05	Metals	Barium	0.81	mg/L		0.0012
AA-CLAY-2-82		5/25/05	Metals	Beryllium	0.0018	mg/L	J	0.00012
AA-CLAY-2-82		5/25/05	Metals	Cadmium	0.0017	mg/L	J	0.001
AA-CLAY-2-82		5/25/05	Metals	Calcium	240	mg/L		0.05
AA-CLAY-2-82		5/25/05	Metals	Chromium	0.35	mg/L		0.00083
AA-CLAY-2-82		5/25/05	Metals	Cobalt	0.029	mg/L		0.00071
AA-CLAY-2-82		5/25/05	Metals	Copper	0.077	mg/L		0.0017
AA-CLAY-2-82		5/25/05	Metals	Iron	130	mg/L		0.027
AA-CLAY-2-82		5/25/05	Metals	Lead	0.051	mg/L		0.0022
AA-CLAY-2-82		5/25/05	Metals	Magnesium	55	mg/L		0.0082
AA-CLAY-2-82		5/25/05	Metals	Manganese	4.3	mg/L		0.0014
AA-CLAY-2-82		5/25/05	Metals	Mercury	0.0002	mg/L	U	0.00008
AA-CLAY-2-82		5/25/05	Metals	Nickel	0.11	mg/L		0.0018
AA-CLAY-2-82		5/25/05	Metals	Potassium	18	mg/L		0.015
AA-CLAY-2-82		5/25/05	Metals	Selenium	0.0065	mg/L	J	0.0062
AA-CLAY-2-82		5/25/05	Metals	Silver	0.01	mg/L	U	0.001
AA-CLAY-2-82		5/25/05	Metals	Sodium	59	mg/L		0.3
AA-CLAY-2-82		5/25/05	Metals	Thallium	0.025	mg/L	U	0.0098

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-82		5/25/05	Metals	Vanadium	0.089	mg/L		0.0014
AA-CLAY-2-82		5/25/05	Metals	Zinc	0.79	mg/L		0.003
AA-CLAY-2-82		5/25/05	Other	Ammonia	0.48	mg/L		0.015
AA-CLAY-2-102		5/25/05	VOCs	1,1,1-Trichloroethane	50	ug/L	U	40
AA-CLAY-2-102		5/25/05	VOCs	1,1,2,2-Tetrachloroethane	50	ug/L	U	11
AA-CLAY-2-102		5/25/05	VOCs	1,1,2-Trichloroethane	50	ug/L	U	19
AA-CLAY-2-102		5/25/05	VOCs	1,1-Dichloroethane	55	ug/L		28
AA-CLAY-2-102		5/25/05	VOCs	1,1-Dichloroethylene	50	ug/L	U	47
AA-CLAY-2-102		5/25/05	VOCs	1,2-Dichloroethane	50	ug/L	U	14
AA-CLAY-2-102		5/25/05	VOCs	1,2-Dichloroethene (total)	140	ug/L		60
AA-CLAY-2-102		5/25/05	VOCs	1,2-Dichloropropane	50	ug/L	U	13
AA-CLAY-2-102		5/25/05	VOCs	2-Butanone (MEK)	500	ug/L	U	36
AA-CLAY-2-102		5/25/05	VOCs	4-Methyl-2-pentanone (MIBK)	170	ug/L	J	23
AA-CLAY-2-102		5/25/05	VOCs	Acetone	1300	ug/L	U	370
AA-CLAY-2-102		5/25/05	VOCs	Benzene	230	ug/L		27
AA-CLAY-2-102		5/25/05	VOCs	Bromodichloromethane	50	ug/L	U	21
AA-CLAY-2-102		5/25/05	VOCs	Bromoform	50	ug/L	U	18
AA-CLAY-2-102		5/25/05	VOCs	Bromomethane	50	ug/L	U	47
AA-CLAY-2-102		5/25/05	VOCs	Carbon Disulfide	50	ug/L	U	38
AA-CLAY-2-102		5/25/05	VOCs	Carbon Tetrachloride	50	ug/L	U	46
AA-CLAY-2-102		5/25/05	VOCs	Chlorobenzene	4800	ug/L		21
AA-CLAY-2-102		5/25/05	VOCs	Chlorodibromomethane	50	ug/L	U	20
AA-CLAY-2-102		5/25/05	VOCs	Chloroethane	50	ug/L	U	45
AA-CLAY-2-102		5/25/05	VOCs	Chloroform	50	ug/L	U	26
AA-CLAY-2-102		5/25/05	VOCs	Chloromethane	50	ug/L	U	27
AA-CLAY-2-102		5/25/05	VOCs	cis-1,3-Dichloropropene	50	ug/L	U	21
AA-CLAY-2-102		5/25/05	VOCs	Dichloromethane	790	ug/L		22
AA-CLAY-2-102		5/25/05	VOCs	Ethylbenzene	50	ug/L	U	31
AA-CLAY-2-102		5/25/05	VOCs	Methyl N-Butyl Ketone	500	ug/L	U	20
AA-CLAY-2-102		5/25/05	VOCs	Styrene (Monomer)	50	ug/L	U	21
AA-CLAY-2-102		5/25/05	VOCs	Tetrachloroethene	50	ug/L	U	38
AA-CLAY-2-102		5/25/05	VOCs	Toluene	300	ug/L		31
AA-CLAY-2-102		5/25/05	VOCs	trans-1,3-Dichloropropene	50	ug/L	U	18
AA-CLAY-2-102		5/25/05	VOCs	Trichloroethene	50	ug/L	U	36
AA-CLAY-2-102		5/25/05	VOCs	Vinyl chloride	50	ug/L	U	46
AA-CLAY-2-102		5/25/05	VOCs	Xylenes, Total	100	ug/L	U	80
AA-CLAY-2-102		5/25/05	SVOCs	1,2,4-Trichlorobenzene	9.4	ug/L	U	0.51
AA-CLAY-2-102		5/25/05	SVOCs	1,2-Dichlorobenzene	27	ug/L		0.94
AA-CLAY-2-102		5/25/05	SVOCs	1,3-Dichlorobenzene	28	ug/L		0.52
AA-CLAY-2-102		5/25/05	SVOCs	1,4-Dichlorobenzene	560	ug/L	E	0.49
AA-CLAY-2-102		5/25/05	SVOCs	2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether)	9.4	ug/L	U	0.77
AA-CLAY-2-102		5/25/05	SVOCs	2,4,5-Trichlorophenol	9.4	ug/L	U	0.59
AA-CLAY-2-102		5/25/05	SVOCs	2,4,6-Trichlorophenol	9.4	ug/L	U	0.66
AA-CLAY-2-102		5/25/05	SVOCs	2,4-Dichlorophenol	9.3	ug/L	J	0.62
AA-CLAY-2-102		5/25/05	SVOCs	2,4-Dimethylphenol	9.4	ug/L	U	0.94
AA-CLAY-2-102		5/25/05	SVOCs	2,4-Dinitrophenol	47	ug/L	U	4.7
AA-CLAY-2-102		5/25/05	SVOCs	2,4-Dinitrotoluene	9.4	ug/L	U	0.53
AA-CLAY-2-102		5/25/05	SVOCs	2,6-Dinitrotoluene	9.4	ug/L	U	0.54
AA-CLAY-2-102		5/25/05	SVOCs	2-Chloronaphthalene	9.4	ug/L	U	0.58
AA-CLAY-2-102		5/25/05	SVOCs	2-Chlorophenol	48	ug/L		0.68
AA-CLAY-2-102		5/25/05	SVOCs	2-Methylnaphthalene	0.88	ug/L	J	0.5
AA-CLAY-2-102		5/25/05	SVOCs	2-Methylphenol (o-Cresol)	9.4	ug/L	U	0.66
AA-CLAY-2-102		5/25/05	SVOCs	2-Nitroaniline	47	ug/L	U	0.65
AA-CLAY-2-102		5/25/05	SVOCs	2-Nitrophenol	9.4	ug/L	U	0.69
AA-CLAY-2-102		5/25/05	SVOCs	3 & 4 Methylphenol	9.4	ug/L	U	0.62
AA-CLAY-2-102		5/25/05	SVOCs	3,3'-Dichlorobenzidine	19	ug/L	U	0.94
AA-CLAY-2-102		5/25/05	SVOCs	3-Nitroaniline	47	ug/L	U	0.65
AA-CLAY-2-102		5/25/05	SVOCs	4,6-Dinitro-2-methylphenol	47	ug/L	U	0.94



**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-102		5/25/05	SVOCs	4-Bromophenyl Phenyl Ether	9.4	ug/L	U	0.8
AA-CLAY-2-102		5/25/05	SVOCs	4-Chloro-3-methylphenol	9.4	ug/L	U	0.52
AA-CLAY-2-102		5/25/05	SVOCs	4-Chlorophenyl Phenyl Ether	9.4	ug/L	U	0.53
AA-CLAY-2-102		5/25/05	SVOCs	4-Nitrophenol	47	ug/L	U	3.2
AA-CLAY-2-102		5/25/05	SVOCs	Acenaphthene	9.4	ug/L	U	0.6
AA-CLAY-2-102		5/25/05	SVOCs	Acenaphthylene	9.4	ug/L	U	0.55
AA-CLAY-2-102		5/25/05	SVOCs	Anthracene	9.4	ug/L	U	0.83
AA-CLAY-2-102		5/25/05	SVOCs	Benzo(a)anthracene	9.4	ug/L	U	0.55
AA-CLAY-2-102		5/25/05	SVOCs	Benzo(a)pyrene	9.4	ug/L	U	0.94
AA-CLAY-2-102		5/25/05	SVOCs	Benzo(b)fluoranthene	9.4	ug/L	U	0.74
AA-CLAY-2-102		5/25/05	SVOCs	Benzo(g,h,i)perylene	9.4	ug/L	U	0.94
AA-CLAY-2-102		5/25/05	SVOCs	Benzo(k)fluoranthene	9.4	ug/L	U	0.69
AA-CLAY-2-102		5/25/05	SVOCs	Benzyl Butyl Phthalate	9.4	ug/L	U	0.66
AA-CLAY-2-102		5/25/05	SVOCs	bis(2-Chloroethoxy)methane	9.4	ug/L	U	0.74
AA-CLAY-2-102		5/25/05	SVOCs	bis(2-Chloroethyl)ether	9.4	ug/L	U	0.68
AA-CLAY-2-102		5/25/05	SVOCs	bis(2-Ethylhexyl)phthalate	9.4	ug/L	U	0.92
AA-CLAY-2-102		5/25/05	SVOCs	Carbazole	9.4	ug/L	U	0.77
AA-CLAY-2-102		5/25/05	SVOCs	Chrysene	9.4	ug/L	U	0.94
AA-CLAY-2-102		5/25/05	SVOCs	Dibenzo(a,h)anthracene	9.4	ug/L	U	0.94
AA-CLAY-2-102		5/25/05	SVOCs	Dibenzofuran	9.4	ug/L	U	0.65
AA-CLAY-2-102		5/25/05	SVOCs	Diethyl Phthalate	9.4	ug/L	U	0.56
AA-CLAY-2-102		5/25/05	SVOCs	Dimethyl Phthalate	9.4	ug/L	U	0.56
AA-CLAY-2-102		5/25/05	SVOCs	Di-n-butylphthalate	9.4	ug/L	U	0.77
AA-CLAY-2-102		5/25/05	SVOCs	Di-n-octylphthalate	9.4	ug/L	U	0.75
AA-CLAY-2-102		5/25/05	SVOCs	Dinoseb	9.4	ug/L	U	2.4
AA-CLAY-2-102		5/25/05	SVOCs	Fluoranthene	9.4	ug/L	U	0.94
AA-CLAY-2-102		5/25/05	SVOCs	Fluorene	1.4	ug/L	J	0.52
AA-CLAY-2-102		5/25/05	SVOCs	Hexachlorobenzene	9.4	ug/L	U	1
AA-CLAY-2-102		5/25/05	SVOCs	Hexachlorobutadiene	9.4	ug/L	U	0.94
AA-CLAY-2-102		5/25/05	SVOCs	Hexachlorocyclopentadiene	9.4	ug/L	U	4.7
AA-CLAY-2-102		5/25/05	SVOCs	Hexachloroethane	9.4	ug/L	U	0.94
AA-CLAY-2-102		5/25/05	SVOCs	Indeno(1,2,3-cd)pyrene	9.4	ug/L	U	0.58
AA-CLAY-2-102		5/25/05	SVOCs	Isophorone	9.4	ug/L	U	0.63
AA-CLAY-2-102		5/25/05	SVOCs	Naphthalene	9.4	ug/L	U	0.72
AA-CLAY-2-102		5/25/05	SVOCs	Nitrobenzene	9.4	ug/L	U	0.88
AA-CLAY-2-102		5/25/05	SVOCs	N-Nitroso-di-n-propylamine	9.4	ug/L	U	0.58
AA-CLAY-2-102		5/25/05	SVOCs	N-Nitrosodiphenylamine	24	ug/L		0.75
AA-CLAY-2-102		5/25/05	SVOCs	P-Chloroaniline	7.8	ug/L	J	0.49
AA-CLAY-2-102		5/25/05	SVOCs	Phenanthrene	9.4	ug/L	U	0.7
AA-CLAY-2-102		5/25/05	SVOCs	Phenol	9.4	ug/L	U	0.93
AA-CLAY-2-102		5/25/05	SVOCs	P-Nitroaniline	47	ug/L	U	0.8
AA-CLAY-2-102		5/25/05	SVOCs	Pyrene	9.4	ug/L	U	0.94
AA-CLAY-2-102	DL	5/25/05	SVOCs	1,2,4-Trichlorobenzene	47	ug/L	U	2.5
AA-CLAY-2-102	DL	5/25/05	SVOCs	1,2-Dichlorobenzene	29	ug/L	JD	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	1,3-Dichlorobenzene	26	ug/L	JD	2.6
AA-CLAY-2-102	DL	5/25/05	SVOCs	1,4-Dichlorobenzene	630	ug/L	D	2.5
AA-CLAY-2-102	DL	5/25/05	SVOCs	2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether)	47	ug/L	U	3.9
AA-CLAY-2-102	DL	5/25/05	SVOCs	2,4,5-Trichlorophenol	47	ug/L	U	3
AA-CLAY-2-102	DL	5/25/05	SVOCs	2,4,6-Trichlorophenol	47	ug/L	U	3.3
AA-CLAY-2-102	DL	5/25/05	SVOCs	2,4-Dichlorophenol	47	ug/L	U	3.1
AA-CLAY-2-102	DL	5/25/05	SVOCs	2,4-Dimethylphenol	47	ug/L	U	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	2,4-Dinitrophenol	240	ug/L	U	24
AA-CLAY-2-102	DL	5/25/05	SVOCs	2,4-Dinitrotoluene	47	ug/L	U	2.6
AA-CLAY-2-102	DL	5/25/05	SVOCs	2,6-Dinitrotoluene	47	ug/L	U	2.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	2-Chloronaphthalene	47	ug/L	U	2.9
AA-CLAY-2-102	DL	5/25/05	SVOCs	2-Chlorophenol	43	ug/L	JD	3.4
AA-CLAY-2-102	DL	5/25/05	SVOCs	2-Methylnaphthalene	47	ug/L	U	2.5
AA-CLAY-2-102	DL	5/25/05	SVOCs	2-Methylphenol (o-Cresol)	47	ug/L	U	3.3

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-102	DL	5/25/05	SVOCs	2-Nitroaniline	240	ug/L	U	3.3
AA-CLAY-2-102	DL	5/25/05	SVOCs	2-Nitrophenol	47	ug/L	U	3.4
AA-CLAY-2-102	DL	5/25/05	SVOCs	3 & 4 Methylphenol	47	ug/L	U	3.1
AA-CLAY-2-102	DL	5/25/05	SVOCs	3,3'-Dichlorobenzidine	94	ug/L	U	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	3-Nitroaniline	240	ug/L	U	3.3
AA-CLAY-2-102	DL	5/25/05	SVOCs	4,6-Dinitro-2-methylphenol	240	ug/L	U	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	4-Bromophenyl Phenyl Ether	47	ug/L	U	4
AA-CLAY-2-102	DL	5/25/05	SVOCs	4-Chloro-3-methylphenol	47	ug/L	U	2.6
AA-CLAY-2-102	DL	5/25/05	SVOCs	4-Chlorophenyl Phenyl Ether	47	ug/L	U	2.6
AA-CLAY-2-102	DL	5/25/05	SVOCs	4-Nitrophenol	240	ug/L	U	16
AA-CLAY-2-102	DL	5/25/05	SVOCs	Acenaphthene	47	ug/L	U	3
AA-CLAY-2-102	DL	5/25/05	SVOCs	Acenaphthylene	47	ug/L	U	2.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	Anthracene	47	ug/L	U	4.2
AA-CLAY-2-102	DL	5/25/05	SVOCs	Benzo(a)anthracene	47	ug/L	U	2.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	Benzo(a)pyrene	47	ug/L	U	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	Benzo(b)fluoranthene	47	ug/L	U	3.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	Benzo(g,h,i)perylene	47	ug/L	U	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	Benzo(k)fluoranthene	47	ug/L	U	3.4
AA-CLAY-2-102	DL	5/25/05	SVOCs	Benzyl Butyl Phthalate	47	ug/L	U	3.3
AA-CLAY-2-102	DL	5/25/05	SVOCs	bis(2-Chloroethoxy)methane	47	ug/L	U	3.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	bis(2-Chloroethyl)ether	47	ug/L	U	3.4
AA-CLAY-2-102	DL	5/25/05	SVOCs	bis(2-Ethylhexyl)phthalate	47	ug/L	U	4.6
AA-CLAY-2-102	DL	5/25/05	SVOCs	Carbazole	47	ug/L	U	3.9
AA-CLAY-2-102	DL	5/25/05	SVOCs	Chrysene	47	ug/L	U	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	Dibenzo(a,h)anthracene	47	ug/L	U	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	Dibenzofuran	47	ug/L	U	3.3
AA-CLAY-2-102	DL	5/25/05	SVOCs	Diethyl Phthalate	47	ug/L	U	2.8
AA-CLAY-2-102	DL	5/25/05	SVOCs	Dimethyl Phthalate	47	ug/L	U	2.8
AA-CLAY-2-102	DL	5/25/05	SVOCs	Di-n-butylphthalate	47	ug/L	U	3.9
AA-CLAY-2-102	DL	5/25/05	SVOCs	Di-n-octylphthalate	47	ug/L	U	3.8
AA-CLAY-2-102	DL	5/25/05	SVOCs	Dinoseb	47	ug/L	U	12
AA-CLAY-2-102	DL	5/25/05	SVOCs	Fluoranthene	47	ug/L	U	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	Fluorene	47	ug/L	U	2.6
AA-CLAY-2-102	DL	5/25/05	SVOCs	Hexachlorobenzene	47	ug/L	U	5.2
AA-CLAY-2-102	DL	5/25/05	SVOCs	Hexachlorobutadiene	47	ug/L	U	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	Hexachlorocyclopentadiene	47	ug/L	U	24
AA-CLAY-2-102	DL	5/25/05	SVOCs	Hexachloroethane	47	ug/L	U	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	Indeno(1,2,3-cd)pyrene	47	ug/L	U	2.9
AA-CLAY-2-102	DL	5/25/05	SVOCs	Isophorone	47	ug/L	U	3.2
AA-CLAY-2-102	DL	5/25/05	SVOCs	Naphthalene	47	ug/L	U	3.6
AA-CLAY-2-102	DL	5/25/05	SVOCs	Nitrobenzene	47	ug/L	U	4.4
AA-CLAY-2-102	DL	5/25/05	SVOCs	N-Nitroso-di-n-propylamine	47	ug/L	U	2.9
AA-CLAY-2-102	DL	5/25/05	SVOCs	N-Nitrosodiphenylamine	47	ug/L	U	3.8
AA-CLAY-2-102	DL	5/25/05	SVOCs	P-Chloroaniline	94	ug/L	U	2.5
AA-CLAY-2-102	DL	5/25/05	SVOCs	Phenanthrene	47	ug/L	U	3.5
AA-CLAY-2-102	DL	5/25/05	SVOCs	Phenol	47	ug/L	U	4.7
AA-CLAY-2-102	DL	5/25/05	SVOCs	P-Nitroaniline	240	ug/L	U	4
AA-CLAY-2-102	DL	5/25/05	SVOCs	Pyrene	47	ug/L	U	4.7
AA-CLAY-2-102		5/25/05	Herbicides	2,4,5-T	0.48	ug/L	U	0.076
AA-CLAY-2-102		5/25/05	Herbicides	2,4,5-TP (Silvex)	0.48	ug/L	U	0.031
AA-CLAY-2-102		5/25/05	Herbicides	2,4-D	0.48	ug/L	U	0.1
AA-CLAY-2-102		5/25/05	Herbicides	2,4-DB	0.48	ug/L	U	0.054
AA-CLAY-2-102		5/25/05	Herbicides	Dalapon	9.5	ug/L	U	0.23
AA-CLAY-2-102		5/25/05	Herbicides	Dicamba	0.48	ug/L	U	0.046
AA-CLAY-2-102		5/25/05	Herbicides	Dichlorprop	0.48	ug/L	U	0.029
AA-CLAY-2-102		5/25/05	Herbicides	MCPA (2-Methyl-4-Chlorophenoxyacetic Acid)	110	ug/L	U	11
AA-CLAY-2-102		5/25/05	Herbicides	MCPP	27	ug/L	J	9.5
AA-CLAY-2-102		5/25/05	Herbicides	Pentachlorophenol	0.24	ug/L	U	0.17

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-102		5/25/05	Metals	Aluminum	2.4	mg/L		0.03
AA-CLAY-2-102		5/25/05	Metals	Antimony	0.02	mg/L	U	0.004
AA-CLAY-2-102		5/25/05	Metals	Arsenic	0.01	mg/L	U	0.0042
AA-CLAY-2-102		5/25/05	Metals	Barium	0.13	mg/L		0.0012
AA-CLAY-2-102		5/25/05	Metals	Beryllium	0.00018	mg/L	J	0.00012
AA-CLAY-2-102		5/25/05	Metals	Cadmium	0.005	mg/L	U	0.001
AA-CLAY-2-102		5/25/05	Metals	Calcium	280	mg/L		0.05
AA-CLAY-2-102		5/25/05	Metals	Chromium	0.019	mg/L		0.00083
AA-CLAY-2-102		5/25/05	Metals	Cobalt	0.0039	mg/L	J	0.00071
AA-CLAY-2-102		5/25/05	Metals	Copper	0.013	mg/L	J	0.0017
AA-CLAY-2-102		5/25/05	Metals	Iron	45	mg/L		0.027
AA-CLAY-2-102		5/25/05	Metals	Lead	0.0071	mg/L		0.0022
AA-CLAY-2-102		5/25/05	Metals	Magnesium	45	mg/L		0.0082
AA-CLAY-2-102		5/25/05	Metals	Manganese	1.7	mg/L		0.0014
AA-CLAY-2-102		5/25/05	Metals	Mercury	0.0002	mg/L	U	0.00008
AA-CLAY-2-102		5/25/05	Metals	Nickel	0.011	mg/L	J	0.0018
AA-CLAY-2-102		5/25/05	Metals	Potassium	13	mg/L		0.015
AA-CLAY-2-102		5/25/05	Metals	Selenium	0.01	mg/L	U	0.0062
AA-CLAY-2-102		5/25/05	Metals	Silver	0.01	mg/L	U	0.001
AA-CLAY-2-102		5/25/05	Metals	Sodium	34	mg/L		0.3
AA-CLAY-2-102		5/25/05	Metals	Thallium	0.025	mg/L	U	0.0098
AA-CLAY-2-102		5/25/05	Metals	Vanadium	0.012	mg/L		0.0014
AA-CLAY-2-102		5/25/05	Metals	Zinc	0.11	mg/L		0.003
AA-CLAY-2-102		5/25/05	Other	Ammonia	1.1	mg/L		0.015
AA-CLAY-2-119		5/25/05	VOCs	1,1,1-Trichloroethane	9800	ug/L		79
AA-CLAY-2-119		5/25/05	VOCs	1,1,2,2-Tetrachloroethane	100	ug/L	U	21
AA-CLAY-2-119		5/25/05	VOCs	1,1,2-Trichloroethane	53	ug/L	J	37
AA-CLAY-2-119		5/25/05	VOCs	1,1-Dichloroethane	2100	ug/L		56
AA-CLAY-2-119		5/25/05	VOCs	1,1-Dichloroethylene	460	ug/L		93
AA-CLAY-2-119		5/25/05	VOCs	1,2-Dichloroethane	100	ug/L	U	28
AA-CLAY-2-119		5/25/05	VOCs	1,2-Dichloroethene (total)	9600	ug/L		120
AA-CLAY-2-119		5/25/05	VOCs	1,2-Dichloropropane	100	ug/L	U	26
AA-CLAY-2-119		5/25/05	VOCs	2-Butanone (MEK)	1000	ug/L	U	72
AA-CLAY-2-119		5/25/05	VOCs	4-Methyl-2-pentanone (MIBK)	320	ug/L	J	45
AA-CLAY-2-119		5/25/05	VOCs	Acetone	2500	ug/L	U	730
AA-CLAY-2-119		5/25/05	VOCs	Benzene	5900	ug/L		54
AA-CLAY-2-119		5/25/05	VOCs	Bromodichloromethane	100	ug/L	U	42
AA-CLAY-2-119		5/25/05	VOCs	Bromoform	100	ug/L	U	36
AA-CLAY-2-119		5/25/05	VOCs	Bromomethane	100	ug/L	U	93
AA-CLAY-2-119		5/25/05	VOCs	Carbon Disulfide	100	ug/L	U	75
AA-CLAY-2-119		5/25/05	VOCs	Carbon Tetrachloride	100	ug/L	U	91
AA-CLAY-2-119		5/25/05	VOCs	Chlorobenzene	1300	ug/L		41
AA-CLAY-2-119		5/25/05	VOCs	Chlorodibromomethane	100	ug/L	U	40
AA-CLAY-2-119		5/25/05	VOCs	Chloroethane	100	ug/L	U	89
AA-CLAY-2-119		5/25/05	VOCs	Chloroform	96	ug/L	J	52
AA-CLAY-2-119		5/25/05	VOCs	Chloromethane	100	ug/L	U	53
AA-CLAY-2-119		5/25/05	VOCs	cis-1,3-Dichloropropene	100	ug/L	U	41
AA-CLAY-2-119		5/25/05	VOCs	Dichloromethane	2700	ug/L		44
AA-CLAY-2-119		5/25/05	VOCs	Ethylbenzene	400	ug/L		62
AA-CLAY-2-119		5/25/05	VOCs	Methyl N-Butyl Ketone	1000	ug/L	U	39
AA-CLAY-2-119		5/25/05	VOCs	Styrene (Monomer)	100	ug/L	U	42
AA-CLAY-2-119		5/25/05	VOCs	Tetrachloroethene	100	ug/L	U	75
AA-CLAY-2-119		5/25/05	VOCs	Toluene	11000	ug/L		62
AA-CLAY-2-119		5/25/05	VOCs	trans-1,3-Dichloropropene	100	ug/L	U	36
AA-CLAY-2-119		5/25/05	VOCs	Trichloroethene	100	ug/L	U	71
AA-CLAY-2-119		5/25/05	VOCs	Vinyl chloride	96	ug/L	J	92
AA-CLAY-2-119		5/25/05	VOCs	Xylenes, Total	1700	ug/L		160
AA-CLAY-2-119		5/25/05	SVOCs	1,2,4-Trichlorobenzene	3	ug/L	J	0.51
AA-CLAY-2-119		5/25/05	SVOCs	1,2-Dichlorobenzene	62	ug/L		0.95

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-119		5/25/05	SVOCs	1,3-Dichlorobenzene	4.9	ug/L	J	0.52
AA-CLAY-2-119		5/25/05	SVOCs	1,4-Dichlorobenzene	170	ug/L		0.5
AA-CLAY-2-119		5/25/05	SVOCs	2,2'-Oxybis(1-Chloropropane) (bis-2-chloroisopropyl ether)	9.5	ug/L	U	0.78
AA-CLAY-2-119		5/25/05	SVOCs	2,4,5-Trichlorophenol	9.5	ug/L	U	0.6
AA-CLAY-2-119		5/25/05	SVOCs	2,4,6-Trichlorophenol	9.5	ug/L	U	0.67
AA-CLAY-2-119		5/25/05	SVOCs	2,4-Dichlorophenol	9.1	ug/L	J	0.63
AA-CLAY-2-119		5/25/05	SVOCs	2,4-Dimethylphenol	24	ug/L		0.95
AA-CLAY-2-119		5/25/05	SVOCs	2,4-Dinitrophenol	48	ug/L	U	4.8
AA-CLAY-2-119		5/25/05	SVOCs	2,4-Dinitrotoluene	9.5	ug/L	U	0.53
AA-CLAY-2-119		5/25/05	SVOCs	2,6-Dinitrotoluene	9.5	ug/L	U	0.54
AA-CLAY-2-119		5/25/05	SVOCs	2-Chloronaphthalene	9.5	ug/L	U	0.59
AA-CLAY-2-119		5/25/05	SVOCs	2-Chlorophenol	4.3	ug/L	J	0.69
AA-CLAY-2-119		5/25/05	SVOCs	2-Methylnaphthalene	4.5	ug/L	J	0.5
AA-CLAY-2-119		5/25/05	SVOCs	2-Methylphenol (o-Cresol)	87	ug/L		0.67
AA-CLAY-2-119		5/25/05	SVOCs	2-Nitroaniline	48	ug/L	U	0.66
AA-CLAY-2-119		5/25/05	SVOCs	2-Nitrophenol	9.5	ug/L	U	0.7
AA-CLAY-2-119		5/25/05	SVOCs	3 & 4 Methylphenol	99	ug/L		0.63
AA-CLAY-2-119		5/25/05	SVOCs	3,3'-Dichlorobenzidine	19	ug/L	U	0.95
AA-CLAY-2-119		5/25/05	SVOCs	3-Nitroaniline	48	ug/L	U	0.66
AA-CLAY-2-119		5/25/05	SVOCs	4,6-Dinitro-2-methylphenol	48	ug/L	U	0.95
AA-CLAY-2-119		5/25/05	SVOCs	4-Bromophenyl Phenyl Ether	9.5	ug/L	U	0.81
AA-CLAY-2-119		5/25/05	SVOCs	4-Chloro-3-methylphenol	9.5	ug/L	U	0.52
AA-CLAY-2-119		5/25/05	SVOCs	4-Chlorophenyl Phenyl Ether	9.5	ug/L	U	0.53
AA-CLAY-2-119		5/25/05	SVOCs	4-Nitrophenol	48	ug/L	U	3.2
AA-CLAY-2-119		5/25/05	SVOCs	Acenaphthene	9.5	ug/L	U	0.61
AA-CLAY-2-119		5/25/05	SVOCs	Acenaphthylene	9.5	ug/L	U	0.55
AA-CLAY-2-119		5/25/05	SVOCs	Anthracene	9.5	ug/L	U	0.84
AA-CLAY-2-119		5/25/05	SVOCs	Benzo(a)anthracene	9.5	ug/L	U	0.55
AA-CLAY-2-119		5/25/05	SVOCs	Benzo(a)pyrene	9.5	ug/L	U	0.95
AA-CLAY-2-119		5/25/05	SVOCs	Benzo(b)fluoranthene	9.5	ug/L	U	0.74
AA-CLAY-2-119		5/25/05	SVOCs	Benzo(g,h,i)perylene	9.5	ug/L	U	0.95
AA-CLAY-2-119		5/25/05	SVOCs	Benzo(k)fluoranthene	9.5	ug/L	U	0.7
AA-CLAY-2-119		5/25/05	SVOCs	Benzyl Butyl Phthalate	9.5	ug/L	U	0.67
AA-CLAY-2-119		5/25/05	SVOCs	bis(2-Chloroethoxy)methane	9.5	ug/L	U	0.74
AA-CLAY-2-119		5/25/05	SVOCs	bis(2-Chloroethyl)ether	9.5	ug/L	U	0.69
AA-CLAY-2-119		5/25/05	SVOCs	bis(2-Ethylhexyl)phthalate	9.5	ug/L	U	0.93
AA-CLAY-2-119		5/25/05	SVOCs	Carbazole	9.5	ug/L	U	0.78
AA-CLAY-2-119		5/25/05	SVOCs	Chrysene	9.5	ug/L	U	0.95
AA-CLAY-2-119		5/25/05	SVOCs	Dibenzo(a,h)anthracene	9.5	ug/L	U	0.95
AA-CLAY-2-119		5/25/05	SVOCs	Dibenzofuran	9.5	ug/L	U	0.66
AA-CLAY-2-119		5/25/05	SVOCs	Diethyl Phthalate	0.93	ug/L	J	0.56
AA-CLAY-2-119		5/25/05	SVOCs	Dimethyl Phthalate	9.5	ug/L	U	0.56
AA-CLAY-2-119		5/25/05	SVOCs	Di-n-butylphthalate	9.5	ug/L	U	0.78
AA-CLAY-2-119		5/25/05	SVOCs	Di-n-octylphthalate	9.5	ug/L	U	0.76
AA-CLAY-2-119		5/25/05	SVOCs	Dinoseb	9.5	ug/L	U	2.4
AA-CLAY-2-119		5/25/05	SVOCs	Fluoranthene	9.5	ug/L	U	0.95
AA-CLAY-2-119		5/25/05	SVOCs	Fluorene	9.5	ug/L	U	0.52
AA-CLAY-2-119		5/25/05	SVOCs	Hexachlorobenzene	9.5	ug/L	U	1
AA-CLAY-2-119		5/25/05	SVOCs	Hexachlorobutadiene	9.5	ug/L	U	0.95
AA-CLAY-2-119		5/25/05	SVOCs	Hexachlorocyclopentadiene	9.5	ug/L	U	4.8
AA-CLAY-2-119		5/25/05	SVOCs	Hexachloroethane	9.5	ug/L	U	0.95
AA-CLAY-2-119		5/25/05	SVOCs	Indeno(1,2,3-cd)pyrene	9.5	ug/L	U	0.59
AA-CLAY-2-119		5/25/05	SVOCs	Isophorone	9.5	ug/L	U	0.64
AA-CLAY-2-119		5/25/05	SVOCs	Naphthalene	8.5	ug/L	J	0.72
AA-CLAY-2-119		5/25/05	SVOCs	Nitrobenzene	9.5	ug/L	U	0.89
AA-CLAY-2-119		5/25/05	SVOCs	N-Nitroso-di-n-propylamine	9.5	ug/L	U	0.59
AA-CLAY-2-119		5/25/05	SVOCs	N-Nitrosodiphenylamine	9.5	ug/L	U	0.76
AA-CLAY-2-119		5/25/05	SVOCs	P-Chloroaniline	19	ug/L	U	0.5

**Sauget Area 2**  
**2005 AA-CLAY-2 Data**

Sample ID	Dilution (DL) or Reanalysis (RE)	Sample Date	Group	Chemical	Result	Units	Lab Qualifiers	Reporting Limit
AA-CLAY-2-119		5/25/05	SVOCs	Phenanthrene	9.5	ug/L	U	0.7
AA-CLAY-2-119		5/25/05	SVOCs	Phenol	77	ug/L		0.94
AA-CLAY-2-119		5/25/05	SVOCs	P-Nitroaniline	48	ug/L	U	0.81
AA-CLAY-2-119		5/25/05	SVOCs	Pyrene	9.5	ug/L	U	0.95
AA-CLAY-2-119		5/25/05	Herbicides	2,4,5-T	0.48	ug/L	U	0.076
AA-CLAY-2-119		5/25/05	Herbicides	2,4,5-TP (Silvex)	0.066	ug/L	J	0.031
AA-CLAY-2-119		5/25/05	Herbicides	2,4-D	0.48	ug/L	U	0.1
AA-CLAY-2-119		5/25/05	Herbicides	2,4-DB	0.48	ug/L	U	0.054
AA-CLAY-2-119		5/25/05	Herbicides	Dalapon	9.5	ug/L	U	0.23
AA-CLAY-2-119		5/25/05	Herbicides	Dicamba	0.48	ug/L	U	0.046
AA-CLAY-2-119		5/25/05	Herbicides	Dichlorprop	0.48	ug/L	U	0.029
AA-CLAY-2-119		5/25/05	Herbicides	MCPA (2-Methyl-4- Chlorophenoxyacetic Acid)	110	ug/L	U	11
AA-CLAY-2-119		5/25/05	Herbicides	MCPP	25	ug/L	J	9.5
AA-CLAY-2-119		5/25/05	Herbicides	Pentachlorophenol	0.25	ug/L		0.17
AA-CLAY-2-119		5/25/05	Metals	Aluminum	90	mg/L		0.03
AA-CLAY-2-119		5/25/05	Metals	Antimony	0.02	mg/L	U	0.004
AA-CLAY-2-119		5/25/05	Metals	Arsenic	0.13	mg/L		0.0042
AA-CLAY-2-119		5/25/05	Metals	Barium	0.54	mg/L		0.0012
AA-CLAY-2-119		5/25/05	Metals	Beryllium	0.0045	mg/L		0.00012
AA-CLAY-2-119		5/25/05	Metals	Cadmium	0.0044	mg/L	J	0.001
AA-CLAY-2-119		5/25/05	Metals	Calcium	380	mg/L		0.05
AA-CLAY-2-119		5/25/05	Metals	Chromium	0.25	mg/L		0.00083
AA-CLAY-2-119		5/25/05	Metals	Cobalt	0.07	mg/L		0.00071
AA-CLAY-2-119		5/25/05	Metals	Copper	0.16	mg/L		0.0017
AA-CLAY-2-119		5/25/05	Metals	Iron	240	mg/L		0.027
AA-CLAY-2-119		5/25/05	Metals	Lead	0.11	mg/L		0.0022
AA-CLAY-2-119		5/25/05	Metals	Magnesium	92	mg/L		0.0082
AA-CLAY-2-119		5/25/05	Metals	Manganese	10	mg/L		0.0014
AA-CLAY-2-119		5/25/05	Metals	Mercury	0.0002	mg/L	U	0.00008
AA-CLAY-2-119		5/25/05	Metals	Nickel	0.17	mg/L		0.0018
AA-CLAY-2-119		5/25/05	Metals	Potassium	23	mg/L		0.015
AA-CLAY-2-119		5/25/05	Metals	Selenium	0.0082	mg/L	J	0.0062
AA-CLAY-2-119		5/25/05	Metals	Silver	0.01	mg/L	U	0.001
AA-CLAY-2-119		5/25/05	Metals	Sodium	50	mg/L		0.3
AA-CLAY-2-119		5/25/05	Metals	Thallium	0.025	mg/L	U	0.0098
AA-CLAY-2-119		5/25/05	Metals	Vanadium	0.23	mg/L		0.0014
AA-CLAY-2-119		5/25/05	Metals	Zinc	0.9	mg/L		0.003
AA-CLAY-2-119		5/25/05	Other	Ammonia	0.82	mg/L		0.015



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Ted Dragovich  
+  
Jim Moore

RCRA Facility Assessment

Clayton Chemical Company

1631210004

ILD006918327

#1 Mobile Avenue

Sauget, Illinois

Prepared by:

Michael D. Grant and Steve Noblitt

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## Description of Solid Waste Management Units

The following is an individual discussion of each SWMU identified during the preliminary review and visual site inspection. Figure 5-1 is a list of those units. Figure 5-2 is a SWMU locator map. The SWMU's located on the overlay are areas where past activities at the Clayton facility classified these areas as SWMU's. The site plan itself represents the facility in its current condition.

List of Solid Waste Management Units  
Clayton Chemical Company, Sauget, Illinois

<u>SWMU #</u>	<u>Unit Name</u>
1	Waste Drum Storage Dock
2	Drum Staging Building
3	Storage Tanks T205, T206, T207, T210, T211, former tanks T201, T202, T203, T204, T208, and area within contain- ment.
4	Former Still Bottoms Disposal Area
5	Location of former Tanks 4, 5, 6, 7, and 8 and existing tanks 2 and 3.
6	SIGMA Storage Tanks
7	Stills #3 and #4
8	Tanks 11-14, 27, 28, 18, R-1, 43 and area of containment.
9	Processed Solvent Tanks 16, 17, 24, 33, 34, 37-39, 41 and 42 and associated containment.
10	Solvent Feed Tanks 45-47 and solvent distillation unit.
11	Tanks 7, 2, 25, 26, 36, 40, 44 and 9
12	Still #5 and hot oil heater
13	Location of former tanks T-39, T-30, T-29, T-31, and T-32
14	Area of Tanks 51 and 29
15	Prop Plant Area (Tanks G-2-G-11)
16	A-1 Waste Oil Storage Tanks
17	Former location of Bliss underground storage tanks
18	Former location of Bliss vertical tanks
19	Former location of Trade Waste Incineration

Figure 5-1

List of Solid Waste Management Units  
Clayton Chemical Company, Sauget, Illinois

<u>SWMU #</u>	<u>Unit Name</u>
20	Tank Bottoms Disposal Area
21 & 22	Former Drum Storage Areas
23	Tank #20, related piping and railroad spur
24	Underground pipeline break
25	Run-off collection area
26	Crushed empty drum roll-off container
27	Plant Process Sewers

Unit No.: SWMU #1 (Photos - Roll #1210 - #3, #4 & #13)

Unit Name: Waste Drum Storage Dock

Unit Description: The unit is located in the southwest portion of the facility. The dock is elevated to be equivalent in height to a flat bed semi-trailer. The dock is approximately 40'x 83'. The dock is a six inch concrete slab. A 4 inch high containment berm encompasses the dock. The containment is a 4" angle iron, which was sealed with an epoxy material around the seam. This containment was not installed on the dock until 1985. The unit stores 55 gallon drums which have been stored 2 high and as many as 6 wide. Currently, there is a RCRA aisle space violation pending. Also, a hydraulic drum crusher is located in the southwest corner of the dock.

Starting Date: An exact date was not determined, however, the dock was first observed by the Agency during a May 21, 1982 pre-op inspection.

Date of Closure: The unit is still operational and a Part B permit is being sought for this unit. There is no anticipated closure date.

Wastes Managed: The waste stored on this dock D001 - ignitables, F002, F003, F005, spent solvents, as well as some non-hazardous waste oils.

Release Controls: As mentioned previously, a berm surrounds the entire dock, however, this was not constructed until 1985. During the VSI, it was raining, accumulated rainwater was observed and photographed seeping between the berm and the dock (see photos - Roll #1210 - #13).



History of Releases: Stains and liquid have been observed on the dock in the past, however, no samples were taken to identify the material. Drums have been observed in questionable condition with spillage on the outside of the containers (tops and sides). Also, bulging drums have been observed. During a May 25, 1989 inspection, a violation Section 725.271 was alleged for a leaking drum which was observed. See Figure 5-3.

Conclusions: The potential for soil contamination is suspected since secondary containment was not provided until 1985. Also releases to the air are likely, due to the volatile nature of some of the wastes (solvents) handled.

DATE: May 25, 1989

TIME: 11:15 a.m.

I.D. 1631210004

FOS

St. Clair

County

Sauget/Clayton Chemical

PHOTOGRAPH TAKEN TOWARD THE:

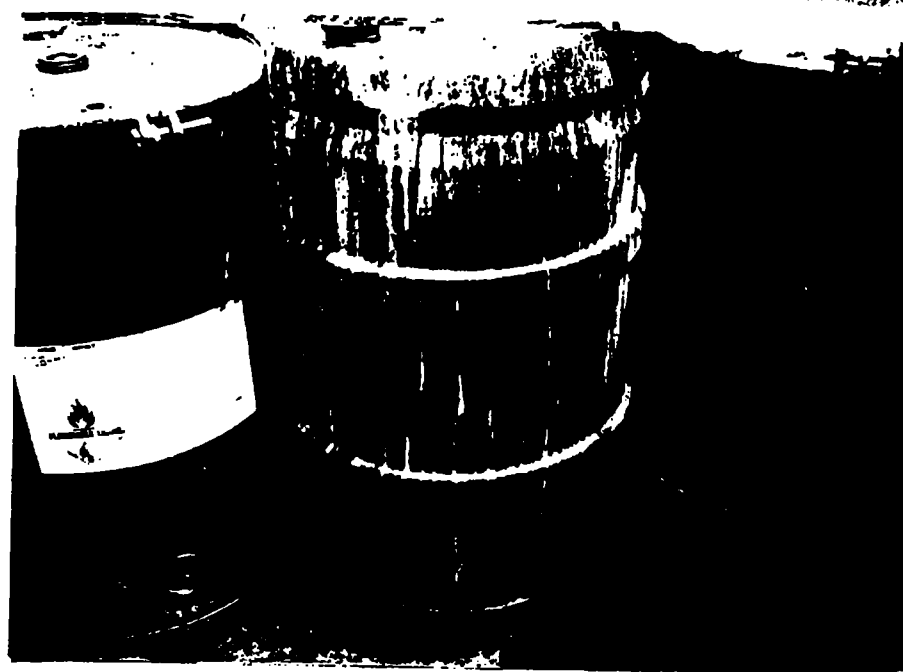
North

ROLL# 1079

PHOTO# 1

PHOTOGRAPH BY:

*Wendy Schaeffer*



TIME:

I.D.

County

PHOTOGRAPH TAKEN TOWARD THE:

ROLL#

PHOTO#

PHOTOGRAPH BY:

WGS:jlr

Unit No.: SWMU #2 (Photos - Roll #1210 - #5, #6 & #7)

Unit Name: Drum Staging Building

Unit Description: This unit is located adjacent to the drum storage dock on the southwestern portion of the facility. This unit was constructed in 1988. The unit is an enclosed metal building and houses a 1050 gallon open top tank used for blending the drummed wastes, a shaker used to separate out the solids, and drum staging. Upon observation, the building appears to have adequate secondary containment. Design specifics are currently not available for the building. The blend tank is currently the issue of a pre-enforcement conference scheduled for January 30, 1990. This tank has yet to be included in Clayton's Part B application.

Date of Start-Up: 1988

• Date of Closure: The unit is currently operational with no anticipated date of closure.

Wastes Managed: As with the drum storage dock wastes managed are D001 ignitables, F002, F003, and F005 spent solvents. The drums from the dock are staged in the drum staging building pumped to either the blending tank or to the distillation areas.

Release Controls: No specifications exist as to the type and adequacy of secondary containment. The building is enclosed with concrete floors.

History of Releases: On May 25, 1989, the Agency investigated a release at the facility which occurred on May 22, 1989. The release occurred as a result of the blending of incompatible wastes in the blend tank. As a result, a vapor cloud was released. The reaction created a large amount of heat which activated the sprinkler system and lasted for approximately 20 minutes. The release was estimated at 880 pounds. Per interviews conducted at Trade Waste Incineration (adjacent to Clayton on the north) the visible emission did drift east to west over their property.

Conclusions: Since the unit has been recently constructed and is enclosed, the possibility for soil contamination is not suspected, however the unit was constructed within the bermed area for SWMU #3 (See SWMU #3). An air release has occurred and was well documented.

Unit No.: SWMU #3 (Photos - Roll #1209 - #5 thru #12)

Unit Name: Storage Tanks, T205, T206, T207, T209, T210, and T211, and area within containment

Unit Description: The unit is located on the southwestern portion of the property and is adjacent to the drum storage dock. The drum staging building is located in the SW corner of the units containment area. Currently, Tanks T205, T206, T207, T209, T210 and T211 are located there. In the past Tanks T201, T202, T203, T204 and T208, as well as two unidentified tanks were located in this area. In Clayton's 1/90 Part B revisions these tanks are 10,000 gallon tanks used for storing non-hazardous waste oil. However, the November 1, 1988 DAPC permit application (#77110028) refers to Tanks T209, T210, and T211 as being used for waste solvent. The unit which was constructed in 1981 and 1982 has a concrete dike on the north and west edges and an earthen berm on the south and east edges.

Date of Start-up: A pre-operational inspection was conducted on May 20, 1982 by the Agency.

Release Controls: Although berms (both concrete and earthen) were provided, the base is gravel. During the VSI, no earthen berm was observed on the southern side (Roll #1209 - #11 & #12).

History of Releases: There is no documented history of releases. During the VSI, spillage was observed around the pump station (Roll #1209 - #7) and also around the tank valve (Roll #1209 - #8).



Conclusions: The potential for soil/groundwater impact in this area is likely, since there were 12 tanks located in this area and six are still remaining and the floor of the tank farm is only gravel. Also these tanks are permitted by DAPC, because they are defined as emission sources.

Unit No.: SWMU #4

Unit Name: Former Still Bottoms Pit/Disposal Area

Unit Description: Three pits were dug in the mid 1970's to dispose of solvent still bottoms from the operation. Pit #1 and #3 are not located on Clayton's property. Pit #2 was estimated as being approximately 30' x 80' and four feet in depth. It was located in the area of the drum storage dock. Estimates are the pit contained 150,000 gallons and was used until full. This information was contained in Clayton's Part B submitted as part of their solid waste management unit certification. No information on this activity is available in the Agency's files. Pit #1 was estimated at 30' x 80' and one foot in depth and was used until full (approximately 35,000 gallons). Pit #3 the largest is estimated at 100' x 300' and 4' in depth with a capacity of 860,000 gallons. These pits were reportedly filled with cinders and fly ash. Off-grade stone from the quarry was also used in Pit #3. Cover material, seeding and fertilizer was then used to complete the fill operation.

Date of Start-up: 1973-1974

Date of Closure: Final seeding of these areas was supposedly completed in 1979-1980.

Wastes Managed: All references of this activity only mention wet still bottoms from solvent recycling. No distinction is made as to what types of solvents were recycled.

Release Controls: All pits were filled. Fly ash and cinders were used in an attempt to stabilize the wastes.

History of Release: There is no known Agency documentation of this activity. This information was submitted by Clayton in the SWMU document.

Conclusions: Solvent still bottoms have been disposed of in three areas only, one of which is on Clayton's property. There is a very release potential to the groundwater in these areas. Since the pits have been covered for at least ten years, groundwater contamination is probable.

Unit No.: SWMU #5 (Photos - Roll #1206 - #13, Roll #1208 - #1 & #2)

Unit Name: Locations of Former Tanks 4, 5, 6, 7 and 8 and currently tanks 2 and 3.

Unit Description: These tanks were located south of the existing fuel tanks #2 and #3. These tanks contained "oil" as stated in a December 29, 1982 correspondence from the company to DAPC. No secondary containment was provided for these tanks. Tanks 2 and 3 remain and are permitted for #2 fuel oil. Tanks 4 and 5 were moved to the boiler on the north end of the property by the gate. A letter to DLPC Permits dated 7/30/87 states that Tanks 6 and 8 were removed from service as product storage tanks. Tank #7 was relocated and is now being used as a hazardous waste storage tank specifically chlorinated still bottoms. Because of their location to the RR siding on the property, waste oil was accepted by rail and unloaded into the tanks.

Date of Start-up: No records were found concerning actual startup, however, these tanks were shown on aerial photographs taken in 1962.

Date of Closure: Mid 1980.

Wastes Managed: Documentation available states these tanks were used to contain waste oil.

Release Controls: No secondary containment was provided for these tanks while located on this portion of the property.

History of Release: No documented evidence of a release in this area.

Conclusions: Since these tanks existed in this area for at least 20 years, there is a strong likelihood that soil and possible groundwater contamination exists.



Unit No.: SWMU #6 (Photos - Roll #1208 - #3 thru #5)

Unit Name: Storage Tanks (Sigma Tanks) S-1 thru S-8 - Secondary Containment

Unit Description: The unit is located in the center portion of the property and directly NNE of SWMU #1. The unit consists of eight (8) 10,000 gallon tanks (S-1 thru S-8) located within concrete secondary containment. The tanks are dedicated solely to Sigma Chemical Co. Four of the tanks (S-1 thru S-4) are designated for the storage of waste acetone and Ethyl alcohol prior to recycling by distillation. The other four tanks (S-5 thru S-8) are utilized for storage of the recycled product.

Each tank is equipped with a liquid level sensor which activates audio/visual alarm as the tank reaches 95% capacity. At a maximum input rate of 100 gpm, the 5% remaining capacity in a 10,000 gallon tank allows 5 minutes to shut down the liquid transfer. Alarms are located at the control room.

The four waste storage tanks were permitted for operation on October 22, 1987 by the DLPC. The facility also maintains the DAPC construction and operating permit #86090020) which was issued 10/24/86 and will expire 9/10/91. This permit pertains to tanks S-1 thru S-8. Prior to construction of this unit, Sigma tanks were formerly located in this area. This operation began in 1973 and the tanks did not have secondary containment. These tanks were used until 1985-1986 when they were pulled and replaced with the current tanks. During that time there were 10 tanks used.

Wastes Managed: Waste acetone (F003) and ethyl alcohol.

Release Controls: The tanks are equipped with audio/visual alarms. The tanks are also located within concrete secondary containment. The containment area is concrete floored and surrounded by a concrete dike. Sealant has been applied to this area to prevent a release through hairline cracks in the concrete.

History of Releases: There is no documented history of releases from this unit.

Conclusions: The potential for soil/groundwater impact in this area is suspected since the previous tanks used did not have secondary containment. The tanks are permitted by DAPC as they are defined as emission sources.

Unit No.: SWMU #7 (Photos - Roll #1208 - #6 & #7)

Unit Name: Distillation units #3 and #4

Unit Description: Installation system #3 is designated for the Sigma recovery operation. This unit, which reclaims acetone, consists of a bubble cap column and a condensor (see Figure 5-4). This unit processes product at a rate of approximately 10 gallons per hour. Still #4 is referred to as the "Frog System". This is a batch distillation operation and uses a distillation column and a condensor. The average process rate for this unit is 10 gallons per minute (see Figure 5-5).

Date of Start-up: An actual start-up date was not available, however, information taken from the May 7, 1980 DAPC permit application (Permit #80050042) states that the distillation columns have been owned and operated by Clayton Chemical since before 1965.

Date of Closure: No anticipated date of closure.

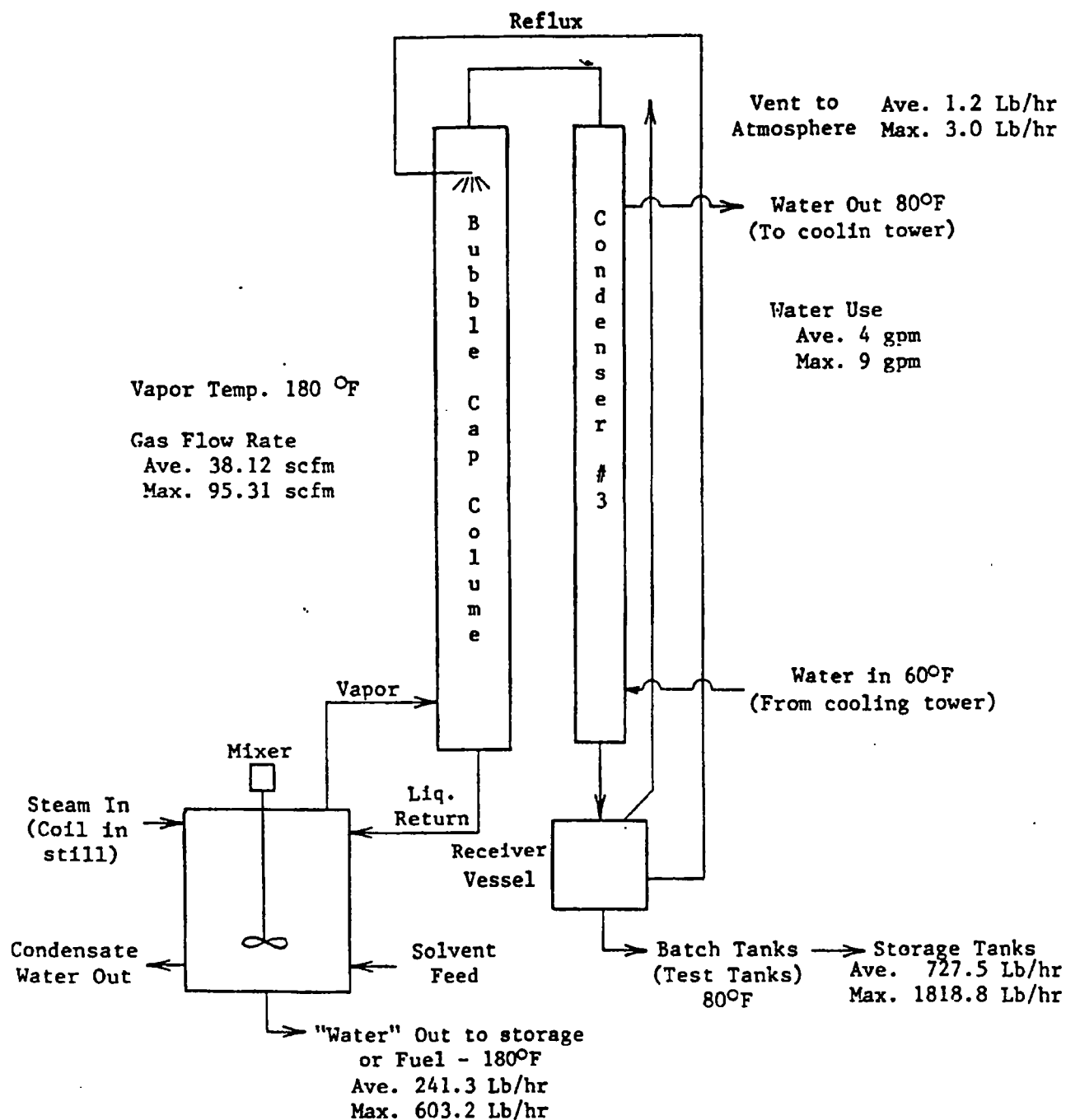
Wastes Managed: Still #3 is used to recycle spent acetone (F003) and Still #4 is used for flammable solvent blends D001, F003, F005, and chlorinated solvents F002.

Release Controls: These stills are enclosed units connected to the tanks via piping.

History of Releases: The only documented release information are the calculations of emissions provided in the DAPC permit application.

Conclusions: These stills are considered sources of air emissions. Also secondary containment was not provided until the 1980's. As a result, the stills were operated approximately 20 years with no secondary containment and, therefore, soil contamination is likely.

### #3 Distillation System (Sigma)



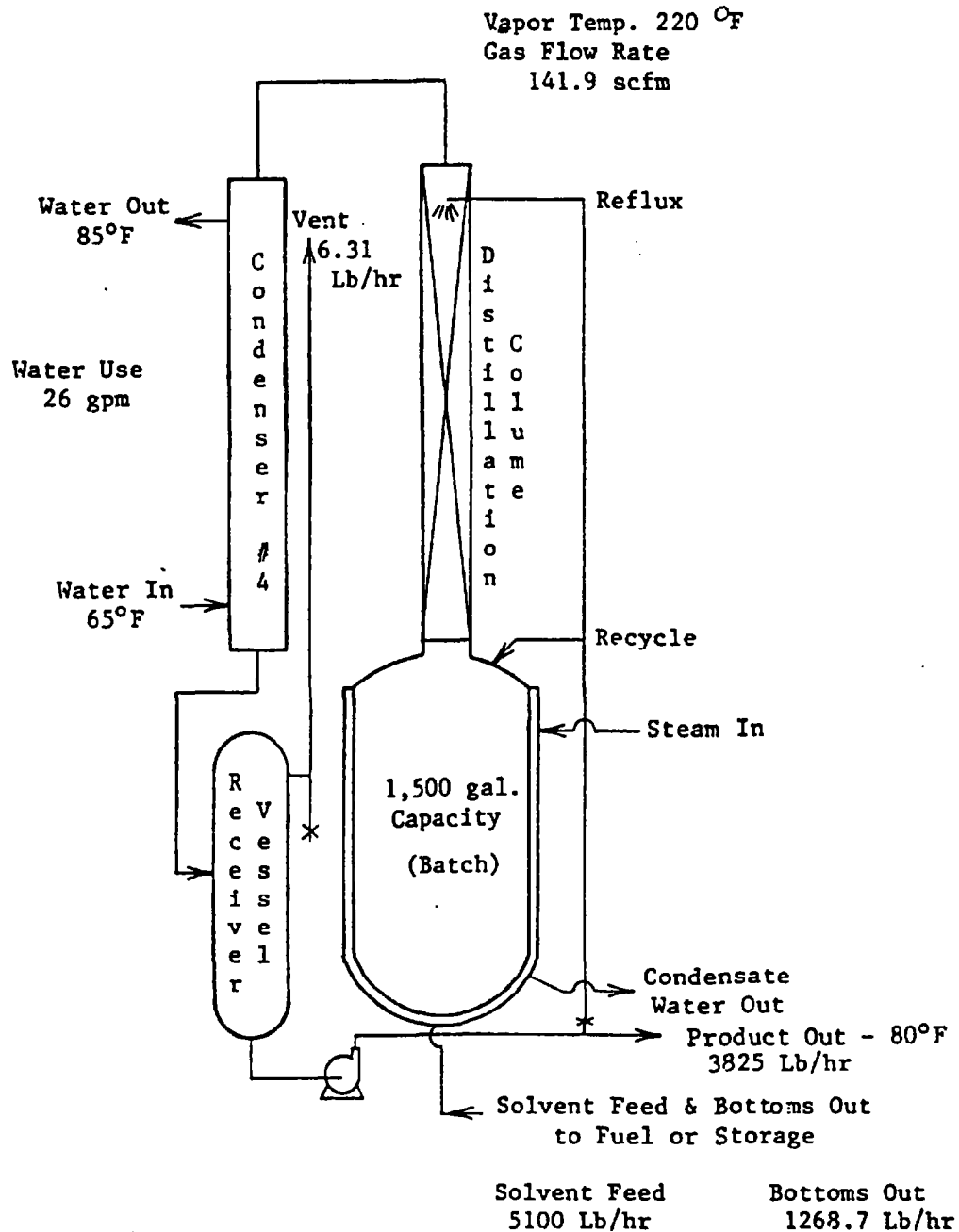
Condenser - 356 sq.ft. SS tubes  
Product average rate 110 gal.hr. (Acetone)  
Operating pressure @ 3 psig

M. Rabos Associates, Inc.

- FIGURE 5-4  
5-20

# #4 "Frog" Distillation System

(Batch Processing)



SS tube condenser 322 sq.ft.

Average process rate 10 gal per min. (Flammable Solvent Blend)

Product to any clean solvent storage or other process system or transport tanker.

Bottoms to fuel or storage tank.

Operating pressure 0.5 psig.

M. Rapps Associates, Inc.

FIGURE 5-5

5-21

Unit No.: SWMU #8

Unit Name: Tank Farm containing Tanks 11-14, 27, 28, 18, R-1 and 43, solvent recovery still #2, shaker screen, and drum accumulation area.

Unit Description: Located at the southwest corner of the distilling operation in the center of the facility. The most recent data revised Part B submitted received January 22, 1990, states that tanks 11-14 have a capacity of 27,500 each and are being used to store non-hazardous waste oil. Tank 18 has a capacity of 3,700 gallons and is being used to store finished product (processed solvent). Tanks 27 and 28 capacity of 4,700 gallons each are used to store finished product. Tank 43 - 2,300 gallons in size is storing non-hazardous waste oil. Tank R-1 is used to store hazardous waste derived fuel. The still is a batch distillation unit with a condenser (See Figure 5-6). These tanks have been in this area as early as 1963 (aerial photograph). Secondary containment for this area was not provided until 1983. During the VSI, approximately 20 drums were observed next to tank R1 awaiting shipment. The shaker screen is used to separate the solids from the liquid phase. The solids go into drums and the liquid is either used for fuel or recycled in one of the stills.

Date of Start-up: This area is depicted as active in aerial photographs from 1962. Unsure as to whether it contains the same tanks and equipment. The still is reported as being in service before 1965. A date was not available for installation of the shaker screen.



Date of Closure: Units are still active with no anticipated date of closure.

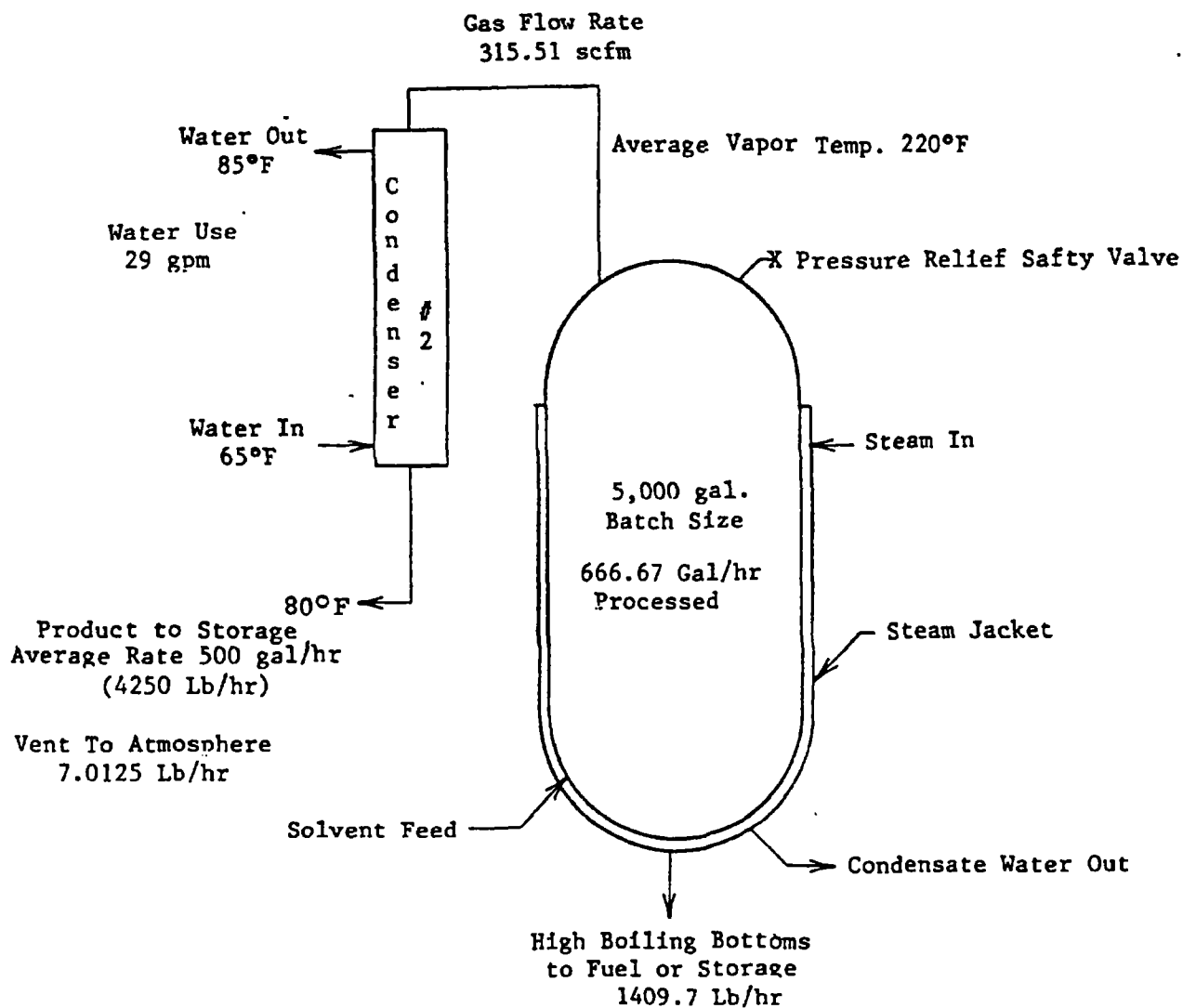
Wastes Managed: Waste oils, hazardous waste fuel (solvent derived) and processed/reclaimed solvent wastes.

Release Controls: Asphalt containment was provided in 1983. However, the shaker screen, the still, and tanks R1, 18 and 43 are not with the asphalt containment. They are on concrete which any runoff or spillage would flow into the sewer grates, or the asphalt containment area.

History of Release: No documented evidence of a release. However, containment was not provided until the early 1980's. During the VSI, several areas of visible contamination were noted around the shaker screen and a sheen was observed below the tanks (#11-#14).

Conclusions: Since this unit has been active for approximately 20 years without secondary containment, soil/groundwater contamination is likely. Also with the tanks, a shaker screen, and a solvent distillation unit, air emissions are probable.

## #2 Distillation System (Batch)



(Flammable Solvent Blend)  
Condenser is 500 sq.ft. SS tubes.  
System vented through bottom filled  
product storage tanks.  
Average pressure 0.5 psig

M. Repps Associates, Inc.

FIGURE 5-6

5-24

Unit No.: SWMU #9 (Photos - Roll #1209 - #1)

Unit Name: Processed Solvent Storage - Tanks 16, 17, 24, 33, 34, 37, 38, 39, 42, and 41

Unit Description: This tank farm located at the SE corner of the distillation operations is used to store processed solvent. Tank sizes range from 3,800 gallons to 11,000 gallons. All tanks are reported as storing finished product/processed solvent in the January 90 Part B revision as well as the November 1, 1988, DAPC permit application. The tanks are within concrete containment. However, concrete containment has not always been provided, only a concrete pad existed prior to the 1980's.

Date of Start-up: Aerial photographs depict tanks in this area in 1973.

Date of Closure: No anticipated date of closure. It should be noted that tanks in this area have been replaced with stainless steel tanks. There are currently 8 stainless and 5 steel tanks.

Waste Managed: These tanks are used for processed solvent and thus do not contain wastes. However, documentation from the mid 70's related to this area is not available.

History of Releases: No documented history of releases.

Conclusions: Release potential to the soil/groundwater is suspected since containment has not always been provided. Air emissions are likely because of the volatile nature of the material (solvents) stored in the tanks.

Unit No.: SWMU #10 (Photos - Roll #1207 - #9 & #10)

Unit Name: Tanks 45, 46 and 47 and a solvent distillation unit #1.

Unit Description: The three tanks are 2,800 gallon each and are waste solvent feed tanks for distillation unit #1. Waste solvents are pumped to these tanks and are used to feed still #1. Still #1 is the LUWA thin film evaporator (see Figure 5-7). Secondary containment was provided to this unit after 1981. These tanks which store waste solvent are not addressed in the facility's Part A application. Only settling occurs in these tanks which does not constitute these tanks as process tanks.

Date of Start-up: Activity in this area is depicted in aerial photographs from 1973 and 1975. The LUWA system was put into service in 1980.

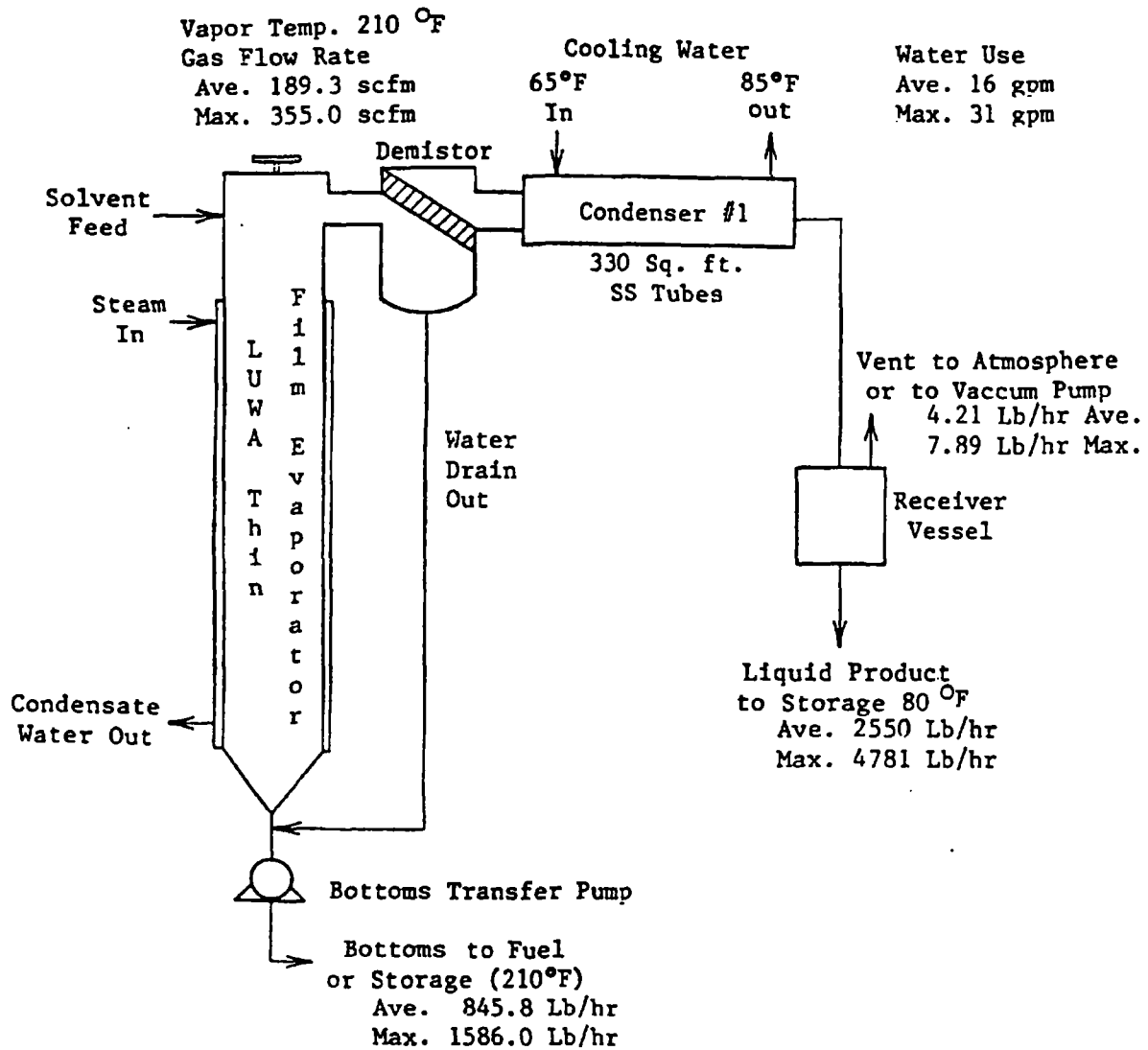
Date of Closure: Unit is still active with no anticipated date of closure.

Release Controls: Concrete containment is provided.

History of Release: No documented evidence of a release.

Conclusions: Soil/groundwater contamination is likely since unit appears to have been operated approximately 10 years without secondary containment. These tanks and the still are DAPC permitted.

# #1 Distillation System



(Flammable Solvent Blend)  
Solvent Feed Average 400 gal. hr.  
Pressure + 1 psig to 20" hg. Vac.  
Maximum Solvent Feed Rate 750 Lb/hr

Unit No.: SWMU #11 (Photos - Roll #1208 - #8 thru #12)

Unit Name: Tanks 7, 52, 25, 26, 36, 40, 44 and 9

Unit Description: The unit consists of eight tanks in the center of the facility directly south of the petroleum reprocessing plant. Waste solvent, still bottoms, processed solvent and fuel oil are stored in these tanks. It has been determined that tank #7 was moved sometime during the mid 1980's from SWMU #5 to its present location. That tank's integrity is suspect, based on information obtained from a former Clayton employee. The system sits on a concrete pad which was poured in 1982. Tanks are surrounded by a concrete dike.

Date of Start-up: Aerial photographs show the unit in place in 1973. It was not visible in photographs from 1964.

Date of Closure: The unit is presently operating and there are no plans for closure in the near future.

Wastes Managed: The 4,893 gallon tank #7 is used for the storage of chlorinated still bottoms. The 9796 gallon tank #52 stores waste solvent prior to its processing. The remaining tanks hold processed solvent and fuel oil.

Release Controls: The tanks sit on a concrete pad and are surrounded by a concrete dike. However, cracks were observed in the floor of the concrete and a large crack, which has been patched, on the berm (Roll #1208 - #11).

History of Release: No documented evidence of a release. During the VSI, sheens were observed on the water within the containment area (Roll #1208 - #8, #10 & #12).

Conclusions: Since these tanks operated for approximately 10 years without secondary containment and sheens were observed within the containment during the VSI, it is probable that contamination occurred before completion of the pad and containment area. Air emissions are also likely.



Unit No.: SWMU #12 (Photos - Roll #1202 - #6 & #7)

Unit Name: Still #5 and Hot Oil Heater

Unit Description: The unit is used for waste oil reclamation. A process diagram is attached (Figure 5-8). Pursuant to letters in Clayton's Solid Waste Management Units documentation, PCB oil was used in the hot oil heater. In that document, a memo reflecting statements from a former employee states that the system used PCB heat transfer fluid and that the pump associated with the system leaked badly and required a great deal of maintenance. It is unsure as to whether this hot oil heater is the same as the one currently at the site. A TSCA inspection was conducted on 8/8/85 by the USEPA. A sample from the hot oil heater was obtained and showed a PCB level of 26.6 ppm.

Date of Start-up: The still was operational prior to 1965.

Date of Closure: Hot oil heater is still operating. Still #5 has not been used in a couple of years.

Wastes Managed: PCB oil (product) was used as the heat transfer fluid. Still is used to process waste oils.

Release Controls: A concrete pad was provided in these areas to allow run-off to enter the drains. However, it was not provided until after 1980.

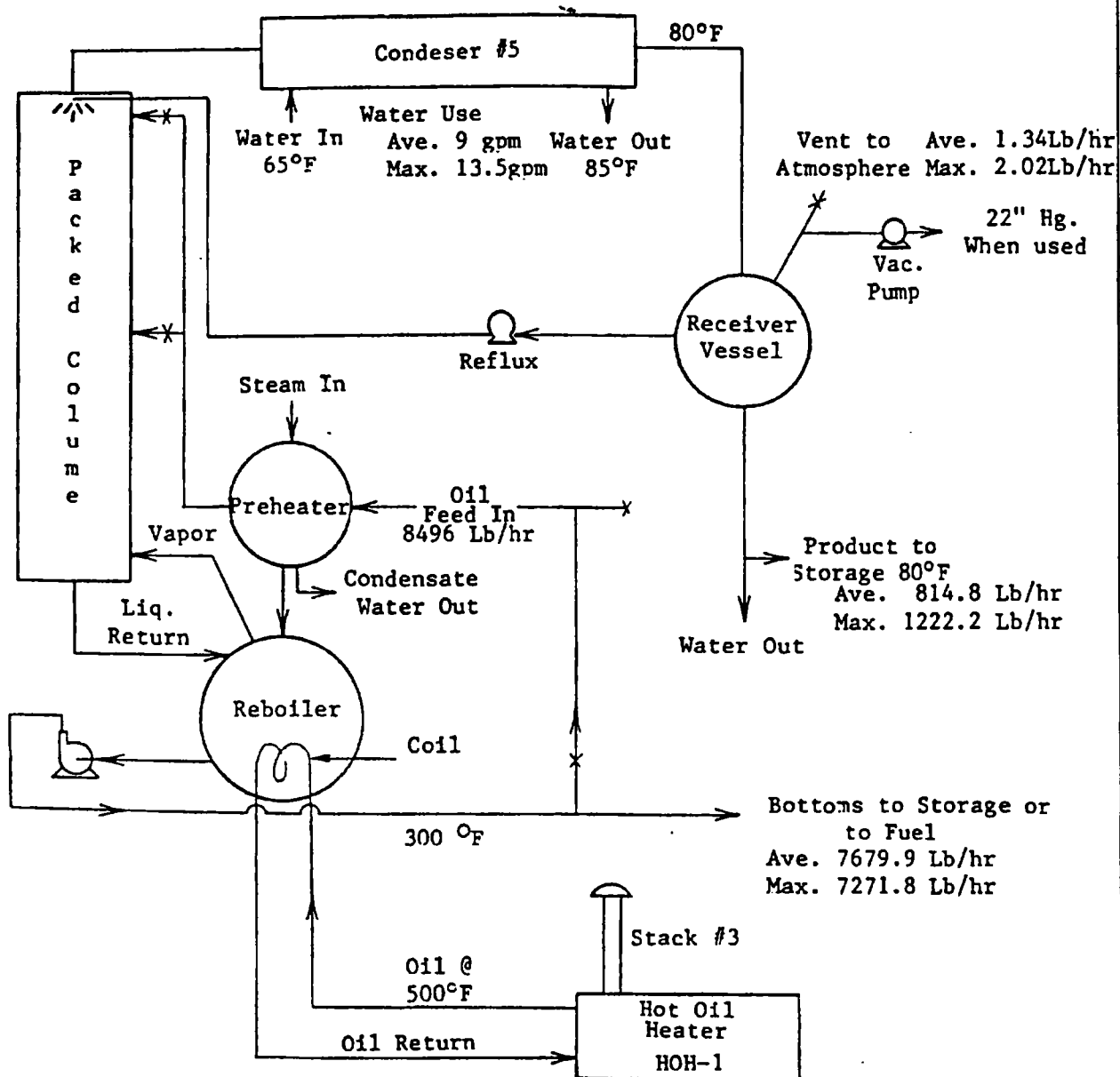
History of Releases: A document submitted by Clayton from a conversation with a former employee states the pump system leaked badly.

Conclusions: Since PCB oil was allegedly used in the hot oil heater and a former employee complained of a leaking pump, soil/groundwater contamination is likely.

000000

# #5 Distillation System (Hot Oil System)

Vapor Temp. 300 °F  
Gas Flow Rate  
Ave. 40.55 scfm  
Max. 60.82 scfm



Condenser 225 sq.ft. SS tube  
Feed 20 gal.min. - Overhead 2 gal.min. average, 3 gal. min. max.

M. Rapps Associates, Inc.

FIGURE 5-8  
5-32

*Taken From  
DAPE Permit Application  
771100-8 11/4/88*

Unit No.: SWMU #13 (Photos - Roll #1207 - #3)

Unit Name: Former location of Tank T-39, T-30, T29, T-31 and T-32

Unit Description: The tanks were located on the eastern slope of the facility's boundary. These tanks were 10,000 gallons each. They were reportedly used to store paint and solvent wastes. No secondary containment was available for these tanks while at this location. Tank 29 was moved and is now being used as a hazardous waste storage tank. The other tanks were reportedly cleaned out and scrapped.

Date of Start-up: The tanks are depicted on an aerial photograph taken in 1973.

Date of Closure: These tanks were removed between 1980 and 1981.

Waste Managed: These tanks were used to store paint and solvent wastes.

History of Releases: No documented evidence of release is available, however, an interview with former V.P. suggests spillage was quite extensive in this area.

Conclusions: Since these tanks were used to store hazardous waste without any secondary containment provisions, and were taken out of service shortly after the RCRA regulations became effective. Also, information obtained suggests that soil contamination has occurred. Therefore, an impact to the groundwater should also be considered.

Unit No.: SWMU #14 (Photos - Roll #1207 - #1, #4 & #5)

Unit Name: Location of Tanks 51 and 29

Unit Description: The two tanks and associated secondary containment are located on the eastern edge of the solvent recover operations. Tank 51 is used to store incoming waste solvent and has a capacity of approximately 7,500 gallons. Tank 29 also stores incoming waste solvent and has a capacity of 11,000 gallons. These tanks are located within a 41' x 26' secondary containment. The floors and walls of the containment system are constructed of reinforced concrete. A sump is located within the containment system. A portable pump is used to remove liquids from the sump area.

Date of Start-up: The tank system containing Tanks 51 and 29 was put into service in 1981. However, there appears to be activity in this area as early as 1973 from review of aerial photographs. Tank 29 was originally one of the paint and solvent waste tanks discussed under SWMU #13.

Date of Closure: Both tanks are still in use. Clayton plans to close Tank 29 and include Tank 51 in the Part B permit. A date for closure of Tank 29 has yet to be provided.

Wastes Managed: These two tanks are used to store waste solvents prior to recycling F002, F003, F005.

Release Controls: As mentioned previously reinforced concrete floors and walls were constructed in 1981. A sump is also available to remove spillage/precipitation.

History of Releases: No documented evidence of releases.

Conclusions: As with the locations of tanks in the other areas, soil/groundwater contamination is suspected. Also, tanks are air emission sources.

Unit No.: SWMU #15 (Photos - Roll #1206 - #7 thru #12)

Unit Name: Proposed Petroleum Reprocessing Operation Unit (Clayton Annex)

Description: Clayton proposed a 2.55 acre tract of land in the northern section of the facility be set aside for the development of a petroleum reprocessing operation. The facility received a developmental permit for that operation in 1982. One 290,000 gallon, one 62,434 gallon, two 204,736 gallon and six 27,136 gallon tanks make up the unit. The tanks are anchored to concrete pads though the floor of the tank farm is oil and chip. The entire area is confined by a concrete dike.

The petroleum reprocessing operation plan was abandoned in 1984. No reprocessing activities had even occurred in the unit. The unit was eventually utilized as a product and non-hazardous waste oil storage area.

Date of Start-up: Storage of finished product (processed solvent) and non-hazardous waste oil began in 1982.

Date of Closure: The facility continues to operate the tank unit. There is no anticipation of closure in the near future.

Waste Managed: Based on the information obtained, only tank G-5 was used to store wastes (waste oil). Also, tanks G-6 and G-7 have been used to store acetone (product).



Release Controls: The entire tank unit is anchored to a concrete pad and is surrounded by a concrete and earthen dike. However, the floor of the contained area is cinder and gravel.

History of Releases: No documented releases are on file with the IEPA. During the VSI, spillage around the valve of tank G-5 was observed (Roll #1206 - #12).

Conclusions: Due to the volatile nature of the material handled (processed solvent) fugitive emissions to air can be expected. Further, potential releases to the soil could be a possibility during loading and off-loading procedures.

Unit No.: SWMU #16 (Photos - Roll #1206 - #4 thru #6)

Unit Name: A-1 Waste Oil Storage Tank

Unit Description: The four 17,000 gallon vertical storage tanks are presently located in the NNE portion of the site. These tanks were previously located in the area north of the old TWI incinerator. The tanks are situated on a 65' x 18' concrete pad and surrounded by a concrete dike. They were used, according to A-1, for storage of resaleable non-hazardous waste oils.

Date of Start-up: Following their removal from the previous location, the tanks were erected and put into operation some time after June, 1983.

Date of Closure: The units remain operational and no closure date is anticipated. However, no material has been stored there since June, 1989 following the buy out of A-1 Oil.

Wastes Managed: Per Jerry Russell Bliss of A-1 Oil, the units functioned to store non-hazardous resaleable waste oils only. Analysis of samples collected from Tank #3 in August, 1985, showed the contents to be consistent with Bliss' statement. However, noting Bliss' past record of wastes handled, their management and that the sampling event was preannounced days in advance, it would not be beyond comprehension to assume that wastes other than the non-hazardous waste oils were handled or are being handled at that site.

Release Controls: The tanks are situated on a 65' x 18' concrete pad and surrounded by concrete diking. The off/on loading area for trucks has recently been asphalted and equipped with a collection device.

History of Releases: No releases have been documented by the Agency. During the VSI, a stain on the outside wall of the berm below the piping was observed (Roll #1206 - #6).

Conclusions: The potential for soil contamination via point saturation and runoff is suspected as there was previously no form of containment or collection in the area of the off/on loading of trucks. Also, due to the possibility of past and present handling of volatile wastes potential releases to the air should be taken into account.

Unit No.: SWMU #17 (Photos - Roll #1206 - #1 & #2)

Unit Name: Bliss underground storage tank

Unit Description: The Bliss underground storage unit was located approximately 45' south of the Bliss vertical storage tanks. Bliss contended that the 4000 gallon tank was installed as a water collection unit for the separation of water from oil in the four vertical tanks. That unit was apparently designed to work on a gravity feed principle allowing water to escape the vertical tanks and collect in the underground tank.

Date of Start-up: Operation of the underground tank began sometime in 1978 following its installation by Bliss and a contracted excavator.

Date of Closure: As with Bliss' vertical tanks, the underground tank was never officially closed by Bliss or Clayton. It was, however, exhumed and cut up on site in June 1983 (see Figure 5-8).

Wastes Managed: As previously mentioned, Bliss' contention was that only water separated from resaleable used oils were to be stored in the underground tank. Analyses results of samples taken from that tank were found to be inconsistent with the statement of its contents made by Bliss. Prior to its exhumation, samples were drawn from the tank by representatives of IEPA in February 1983. Analyses of these samples showed the contents of the tank to include, among other compounds, elevated levels of PCB's, Trichloroethylene, Tetrachloroethylene, toluene, xylenes, substituted benzenes and unidentified compounds (See Attachment 4). It was determined by IEPA that the underground

tank was used as a separate storage/disposal unit by Bliss in addition to its use as a water collection unit, and possibly as the same by TWI.

Release Controls: The underground tank was placed directly in-ground with no release controls or detection devices.

History of Releases: The release history of the unit practically began upon its installation in 1978. It was discovered by IEPA, during exhumation of the tank in June 1983, that holes had been punched into its bottom and sides, so as to allow for the intended, continuous release of materials to the surrounding subsurface environment (photos). Such release was evident by analyses of soil samples collected in the area surrounding the tank in June 1983 (See Attachment 5). Soil sample analyses detected PCB's, Trichloroethylene, toluene, xylenes, and substituted benzenes to name a few. Further releases were described in an interview with TWI personnel, around the time allegations surfaced, about the existing holes prior to the tank's exhumation. According to TWI operators, permission was granted by Bliss to allow TWI to cap the tank's riser pipe in the fall of 1980. TWI requested that permission be given when it was found that, particularly during wet weather, oily material would rise out of the pipe and spill over onto the surrounding gravel lot.

Conclusions: Soil and groundwater in the area suffered extreme impact from contaminants originating from the underground tank, due to the tank's purposely manipulated integrity. The potential for release was realized during the entire operational life, from 1978-1983, at all times.

000507

Date: June 6, 1983

Time: 8 am - 1:30 pm A.M. P.M.

Photograph By:

Kenneth G. Menzies

Location: LPC- 16312111

St. Clair

Co.

Sauget / Bliss

Comments: Photograph taken

toward the West



Date: June 6, 1983

Time: 8 am - 1:30 pm A.M. P.M.

Photograph By:

Kenneth G. Menzies

Location: LPC- 16312111

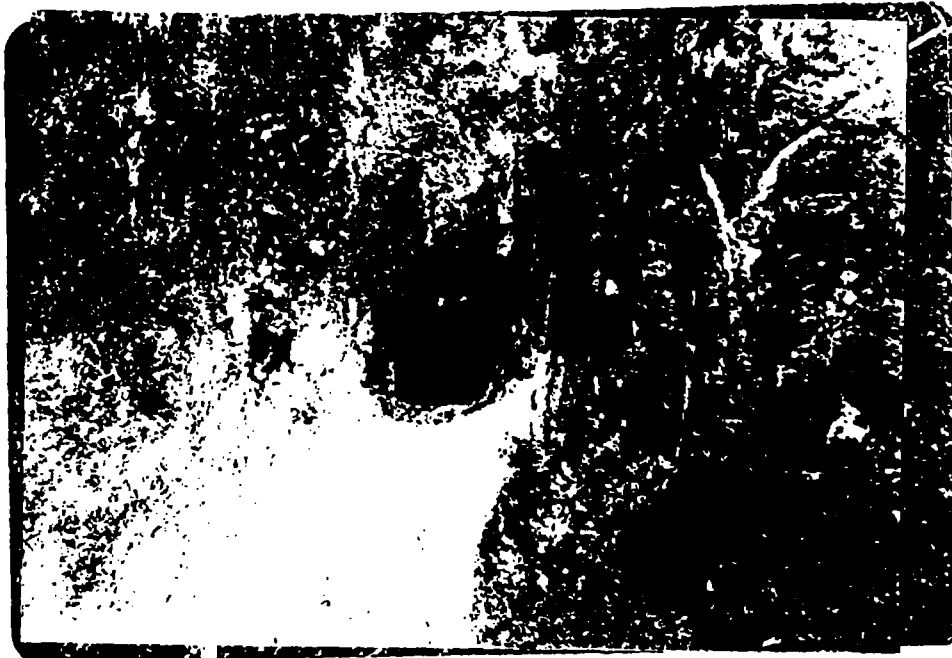
St. Clair

Co.

Sauget / Bliss

Comments: Photograph taken

toward the West



Date: June 6, 1983

Time: 8 am - 1:30 pm A.M. P.M.

Photograph By:

*Kenneth G. Mensing*

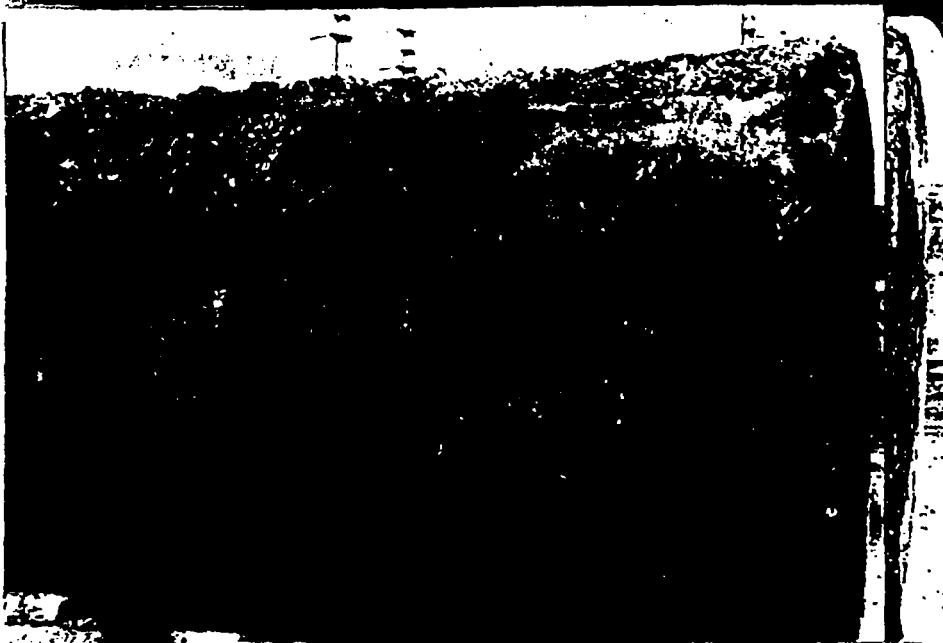
Location: LPC- 16312111

St. Clair Co.

Sauget / Bliss

Comments: Photograph taken

toward the West



Date: June 6, 1983

Time: 8 am - 1:30 pm A.M. P.M.

Photograph By:

*Kenneth G. Mensing*

Location: LPC- 16312111

St. Clair Co.

Sauget / Bliss

Comments: Photograph taken

toward the West





Date: June 6, 1983

Time: 8 am - 1:30 pm A.M. P.M.

Photograph By:

Kenneth G. Mearns

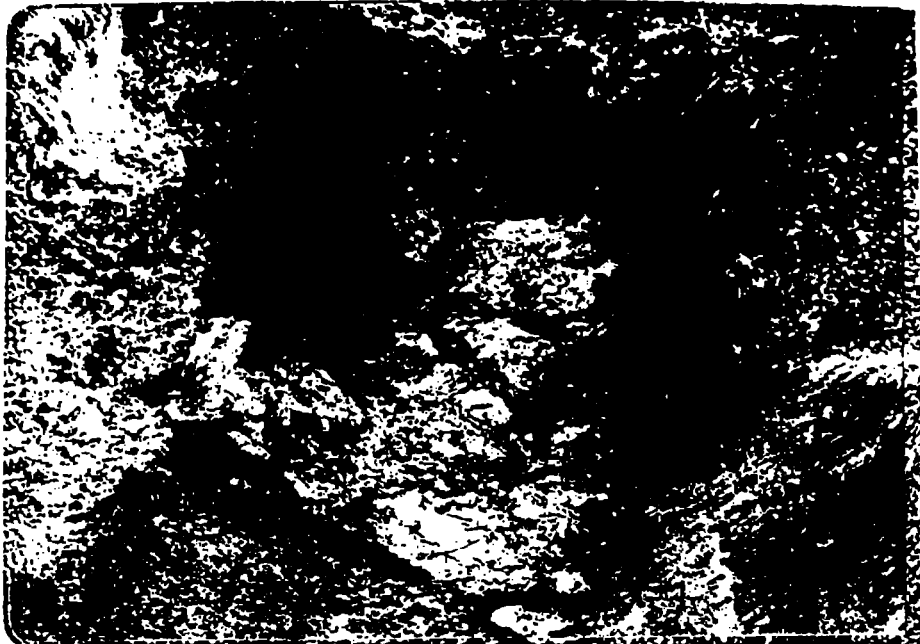
Location: LPC- 16312111

St. Clair Co.

Sauget / Bliss

Comments: Photograph taken

toward the



Date: June 8, 1983

Time: 10:30 am - 5 pm A.M. P.M.

Photograph By:

Kenneth G. McManis

Location: LPC 16312111

St. Clair Co.

Sauget / Bliss

Comments: Photograph taken  
toward the NorthEast



Date: June 8, 1983

Time: 10:30 am - 5 pm A.M. P.M.

Photograph By:

Kenneth G. McManis

Location: LPC 16312111

St. Clair Co.

Sauget / Bliss

Comments: Photograph taken  
toward the East



FIGURE 5-9  
5-43

Unit No.: SWMU #18 (Photos - Roll #1206 - #1 & #2)

Unit Name: Bliss Vertical Tanks

Unit Description: Four 17,000 gallon vertical tanks occupied an area adjacent to the old TWI incinerator in the northern corner of Clayton's property. Those tanks were presumably utilized as a loading/off-loading and storage depot for the now defunct Jerry Russell Bliss, Inc. The tanks, for their entire operational life at that location, were situated on a crushed limestone pad and loading area with no form of secondary containment. Access to the units was gained through gates at the northern corner of the property.

Date of Start-up: Records indicate the four vertical tanks existed on-site since early 1977. However, from personal recollection of staff members involved with the site at that time, a more realistic period was estimated to begin some time in the late 1960's. The approximate date concurs with the approximate date submitted by Clayton, per Russell Bliss in a 1984 Comprehensive Environmental Report.

Date of Closure: Closure activities were never initiated by Bliss or Clayton Chemical, nor did such activities appear to be pursued by the IEPA. The tanks were, however, taken out of service in June 1983, dismantled and stored on an adjacent gravel pad to the immediate south of their previous location. They were re-erected at the point of storage that same month and put back into service.

Wastes Managed: The vertical tanks were reported by Bliss to the IEPA to be utilized as storage units for #2 diesel fuel and resalable used oils. Much controversy circulated about those units in the mid to late 1970's and early 1980's, as a result of Bliss' alleged activities in illegally accepting, storing and disposing of waste oils tainted with 2, 3, 7, 8 tetrachlorodibenzo-p-dioxin and hazardous waste solvents. In answer to those allegations, frequent sampling events were documented through the units life at that location.

Interesting were samples collected during a 12/8/82 site visit. Analysis of those samples indicated elevated levels of PCB's, Toluene, substituted benzenes and Trichloroethylene among others (refer to Attachment 6). No reports were found either proving or disproving the presence of TCDD contaminants in the tanks or surrounding soils and gravel.

Release Controls: None of the four tanks possessed release controls or secondary containment.

History of Releases: Releases from tanks are documented in photos (Figure 5-10) and memoranda. Further documentation was discovered in a Complaint for Injunction and Other Relief and a Complaint for Quo-Warranto and Violations of the Illinois Business Corporation Act. Both were filed on February 18, 1983 in the Circuit Court for the Twentieth Judicial Circuit, St. Clair County, Illinois and naming as respondent and defendant Jerry Russell Bliss, Inc. (Attachment 7). Releases can be attributed to leaking tank valves or inadequately tightened tank valves and generally sloppy loading/off-loading

Date: MAY 20, 1982

Time: 11:35 (A.M.) P.M.

Photograph By:

D. M. Spencer

Location: LPC- 163 12104

ST. CLAIR Co.

SAUGET 1 CLAYTON CHEN  
(BLISS STORAGE)

Comments: Photograph taken

toward the SOUTHEAST



Date: \_\_\_\_\_

Time: \_\_\_\_\_ A.M. P.M.

Photograph By:

Location: LPC-

\_\_\_\_\_ Co.

Comments: Photograph taken

toward the

FIGURE 5-10  
5-48

techniques. Further releases were reported in a 1984 Comprehensive Environmental Report filed by Clayton which admits Clayton's knowledge of tank bottoms being drained onto the ground in the area surrounding several of Clayton's horizontal tanks. Areas directly impacted by the releases include the crushed limestone pad and loading area surrounding the tanks.

Conclusions: Soil/Groundwater - The release potential to the soil/groundwater was significantly high during the operational life of the units in that area as a result of consistent releases and the quantity of material released at a given time. Though downward migration of the material was possibly slowed by the thickness of the gravel pad (6-8"), the soil conditions underlying the gravel pad and the relatively shallow groundwater supply in that area make for a high potential for release situation.

Surface water potential for release to surface water is high due to the materials viscosity, the gravel surface to which it would be released to and the close proximity of off-site drainage pattern.

Unit No.: SWMU #19 (Photos - Roll #1206 - #3)

Unit Name: Trade Waste Incinerator

Unit Description: TWI operated from late 1979 to mid 1982 in the northern corner of Clayton's property. A wide range of waste streams were accepted by the facility for incineration during that period. In addition to the incinerator complex, TWI consisted of several drum storage areas, tank-bulk storage units and docks (see attached map).

Date of Start-up: Operations began following the issuance of an operating permit in late 1979.

Date of Closure: A mutual release entered into by Clayton Chemical and TWI terminated TWI's operation on Clayton's property in August, 1983. Stipulated in that agreement was the demand for TWI's cleanup of all areas associated with their activities during their operation and life at the site. No official closure procedure was ever initiated by TWI, Clayton or IEPA. TWI apparently remediated the site to Clayton's approval in 1983. It was reported in May, 1983 that TWI workers had excavated 4-6" of gravel from the drum storage areas, incinerator vicinity and area around the fuel tanks. That material was then "roasted" in the incinerator and later used as fill material on the new property TWI would relocate to.

Wastes Managed: TWI handled a variety of special, hazardous and pathological waste streams.

Release Controls: The incinerator was equipped with such emission control devices as a quencher, demister, cyclone and Venturi scrubber system. Storage areas related to the operation were, at best, a concrete pad. For the most part, drums were stored directly on the gravel lot (photos) with no form of secondary containment. Tanks were not equipped with release control devices.

History of Releases: Release of contaminants to the soil and air was a routine occurrence at TWI's facility (Attachment 8). Those releases were documented in IEPA files. On many occasions drums were observed to be in poor condition and leaking (see Figure 5-11). Paint wastes and certain types of sludges were contained in garbage bags which would easily rupture. It was further reported that emission control devices on the incinerator operated ineffectively or were, at times, not operated at all. A former employee of Clayton Chemical recalled a black, sticky "rain" falling around the surrounding facility while TWI operated. TWI's general operating record at that location was poor. Routine emissions and spills were recorded. Several incidents documented as proof of such include an accident in which three TWI employees were hospitalized after mishandling drums of paranitroaniline in June, 1982. Another involved damage to the incinerator complex following an explosion in the incinerator in 1982. Because of the poor operating record at TWI, Clayton initiated the terms for a mutual release from the land lease contract in 1983.



Conclusions: Because of the frequent spillage and leakage from drums the potential for contamination of the soil by saturation is extremely high. Also, with the facility's close proximity to the property line, off-site migration by surface water runoff was probable. Emissions to the air were documented and particularly highlighted by the description of the routine "black rain" falling around the facility.